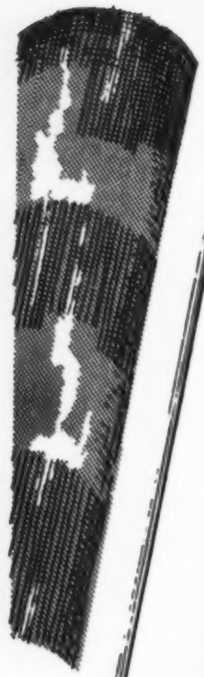
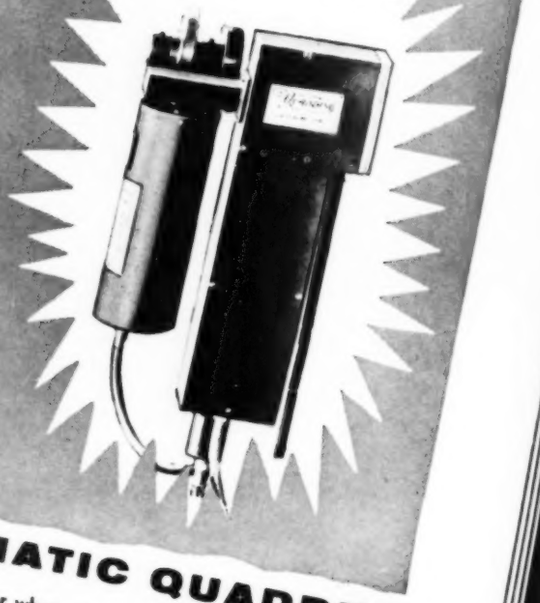
PRINTING EQUIPMENT Engineer

An Industry-Wide Technical Publication for Printing Plant Supervisory Executives

A *GOOD* STORY BEARS REPEATING...



LOOK AT THE EXTRAS YOU GET



WITH THE

STAR SELECTRO-MATIC QUADDER

At no extra cost you get more than just a quadder when you purchase the STAR Selectro-Matic Quadder. In addition to Push Button Controls, Memory System, and simplified Hydraulic Actuation, these time-saving extras are installed with every Selectro-Matic Quadder:

- Double Speed Measure Change
- New Vise Jaws and Blocks
- Electro Pump Stop Safety
- No-Set Delivery with Improved Long Finger Block
- Hardened Assembler slide with No-slip clamp
- Automatic Line Stop with Cover
- Adjustable Vise Locking Screws with Replaceable tips
- New Vise Locking Studs
- Friction-Roll Assembler Slide Brake
- One-Piece Assembling Elevator Gate with Friction Rail

These extras assure you of faster, more efficient quadding and they also improve machine output of all types of composition.

For a complete quadder, choose the Selectro-Matic. Write for 8 page brochure with full details.

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Precision TRADE ★ MARK Parts

SOUTH HACKENSACK, N. J.

sound travels fast–so does a good idea

STA-HI Stereotype Mat Color Registering Equipment, embodying new concepts of precision and efficiency in newspaper color printing, has been enthusiastically accepted by progressive publishing plants from coast to coast . . .

This time and money saving machinery has been installed and may be seen in operation in any of the "color conscious" cities listed below. We will be glad to arrange an on-the-job demonstration for you in a plant close to you.

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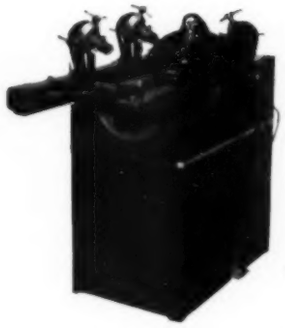

Sta-Hi Master Trimmer

- DENVER
- DES MOINES
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- OKLAHOMA CITY
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235 WEST WASHINGTON BOULEVARD
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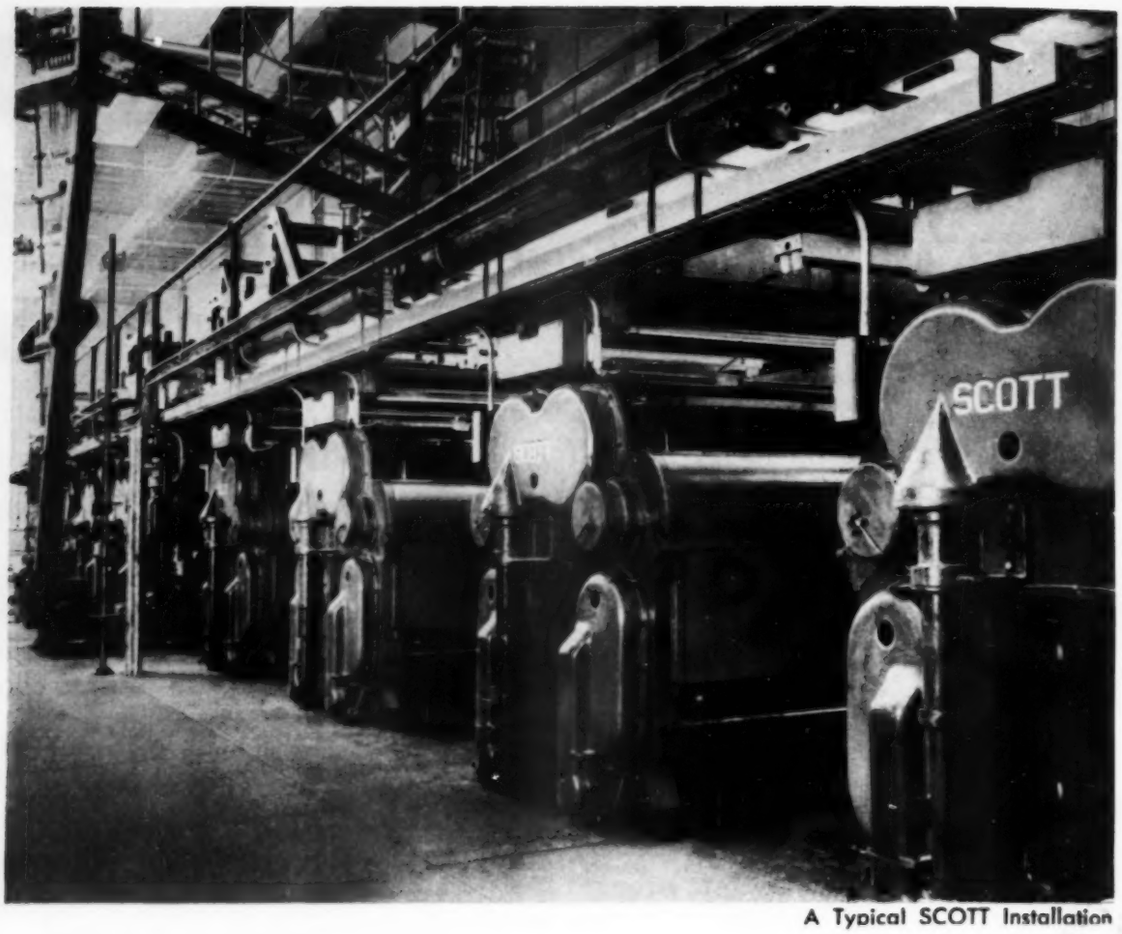

A Typical SCOTT Installation

Why SCOTT *newspaper equipment sets the* Standards of Performance

THE world-famous performance of Scott Newspaper Equipment originates at the design boards, and continues through every stage of manufacture. The resulting over-all superiority of Scott units comes from constant, painstaking attention to every detail involved in these four, broad considerations of design and manufacture:

1. Capability of operation at high speed
2. Maximum flexibility of use
3. Simplicity of equipment design, for economical operation and maintenance
4. Components far sturdier than required, for continuous, unfailing service.

Examine any unit of Scott equipment for its many features of advance design and construction. The fully counter-balanced cylinders, over-sized journals, mounted in large roller bearings close to the body of these cylinders, provide maximum rigidity —plus a specially designed lubricating system, insuring smooth, trouble-free extra-high speed press operation; the over-all symmetry of design and dynamic balancing of rapidly rotating parts. Watch its smooth, effortless operation, at highest speeds — and you will have just a few of the reasons why "SCOTT" stands for Leadership in newspaper equipment.

5-54-2A

Write today for the booklet describing the outstanding advantages of SCOTT printing units.

Buy with CONFIDENCE - - - Buy SCOTT

WALTER SCOTT & CO., INC.

PLAINFIELD, NEW JERSEY

Eliminates MESSY Non-Offset Spray Equipment In Most Cases

Ink offsetting is now a thing of the past because of the amazing quick-drying properties of TRIK. Will deliver impressions of highest quality without the use of non-offset spray or other means of mechanical drying. Do work-and-turn printing without smudge or sticking. Holds ink open on press. TRIK is homogenized, remains stable indefinitely, mixes readily with all inks. Send for trial order today.

Other Nationally Known Central Products

33 and O-33 **Ink Conditioners . . . for sharper halftones, livelier colors.**

GLAZCOTE **. . . Scratch-resistant, for tough, mar-proof surfaces.**

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Manufacturers of Printing Ink Additives Since 1939

Send for your TRIAL ORDER TODAY
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Yes, we're interested in TRIK. Please

☐ Send your special 4 lb. introductory container. Check for $6.00 is enclosed, and I understand my money will be refunded immediately if not satisfied.

☐ Send complete technical bulletins on TRIK and your other ink additives.

NAME_____

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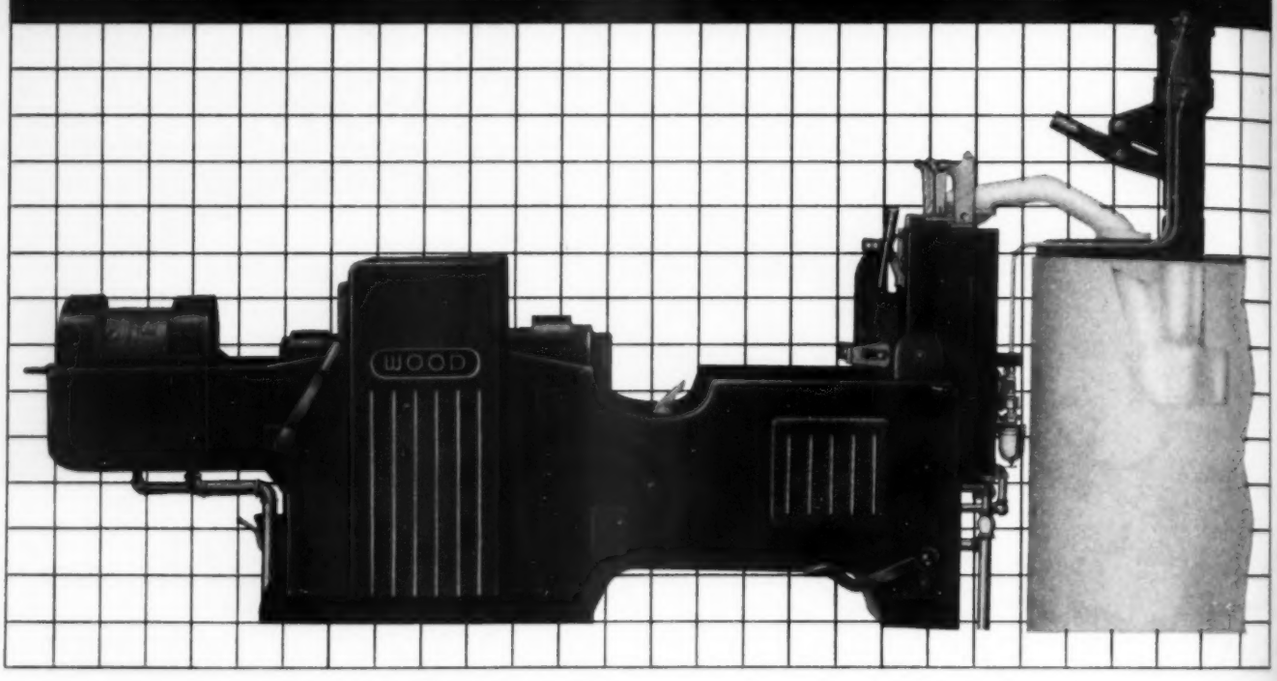
NOW.. smaller city newspapers can enjoy every advantage of in-line plate casting and finishing

THE *NEW* STANDARD PONY AUTOPLATE



Casts BETTER plates, FASTER...

For those daily and weekly newspapers whose production requirements do not call for heavy plate casting schedules, the WOOD NEW *STANDARD* PONY AUTOPLATE provides all the advantages of big city newspaper in-line operation combined with other mechanical features which produce *better* plates, faster.

This compact machine is designed to cast stereotype plates that are more uniform in thickness and curvature. *If you use Tensionplate Lockup,* the WOOD AUTOMILLER can be used in conjunction with the NEW *STANDARD* PONY AUTOPLATE to pre-register color plates, ready for the press.

Let a WOOD Engineer show you how this new stereotype machine can increase the efficiency of your plant.

WRITE FOR SPECIFICATIONS & PRICES

FEATURES WHICH DISTINGUISH THE NEW STANDARD PONY AUTOPLATE

- Improved Arch Construction
- New Cooling and Drying Stand
- Modern, Efficient V-Belt Drive
- Thermostatic Water Controls
- Plate Lifter with Spring Follow-up
- Rigid, One-Piece Frame for Shaving Arch
- Removable Chip-Pan
- Improved Knife Bar Arrangement

And, by comparison, the price is attractive!

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY

EXECUTIVE AND SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, N.Y.

September 1956

PRINTING EQUIPMENT Engineer

An industry-wide technical magazine published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields, covering major processes.

Volume 86 Number 12

PRINTING EQUIPMENT *Engineer*, published monthly at 1276 West Third St., Cleveland 13, Ohio. Copyright 1956 by Willsea Publishing Co.

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Subscription rates in United States: One year, $4.50; two years, $8.00; three years, $10.00. Canada and U. S. Possessions: One year, $5.50; two years, $8.50; three years, $11.00. All other countries: One year, $10.00; two years, $16.00; three years, $20.00, in advance. Single current issues, 50c; back issues, 75c. December Equipment and Supplies Catalog Issue $2.50 in United States; $3.50 outside United States. Canadian printing plant mechanical and production executives receiving *Printing Equipment Engineer* under BPA regulations will be charged $1 per year in advance to cover additional postage to Canada.

Member Publications BPA Business Audit

Accepted as Controlled Circulation Publication at Cleveland, Ohio.

Printed in U. S. A.

PRINCIPAL ARTICLES

The New Equipment Problem In the Commercial Printing Field—Part 1 29
By J. W. ROCKEFELLER, Jr.

$1 Million in New Equipment For N. Y. Combination Plant 32

Report of the Los Angeles Craftmen's Convention 35

Individual Air Conditioners in Commercial Shop 39
By FRANCIS A. WESTBROOK

Flexographic Printing—II 42
By MR. FLEXOGRAPHY

Common Impression Cylinder Press For Magazine Offset Printing 47
By GEO. R. BRODIE

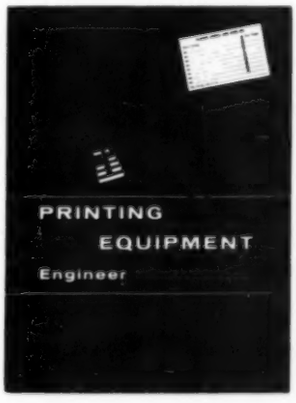
Proofing Stereotype Ad Mats 49
By RAY S. BROWN

Regular Departments:

Graphic Arts Literature, 12
Patents for the Graphic Arts, 62
Graphic Arts Meetings, 65
News Items, 67
Books, 73
Equipment Sales and Installations Reports, 75
Advertisers' Index, 80

Equipment and Supplies 6

Liner Cutting Gauge, 6
Flexographic Design Rollers, 6
Photo Stencils, 6
Portable Psychrometer, 10
Tabbing Timer, 10
Offset Prevention Spray System, 14
Tipp Trolley, 14
Silk Screen Printer, 14
Gray Contact Screen, 18
Large Hole Paper Drilling Machine, 18
Presensitized Offset Plate, 18
Deep Etch Chemicals Kit, 18
Revolving Roll Clamp, 18
Two-way Gravure Arc Lamp, 26
Aluminum Barrel Truck, 26
Duplicate Letterpress Plate, 26
Carlson Shell Plate Finisher, 52
Black India Ink Pen, 77
Overhead Tramrail System, 77
Squeeze Tubes, 77
Invisible Ink, 78
Dirats Powderless Etcher, 78
Plastic Saw Guard, 78
Air Compressor Equipment, 79
Wesel 25 Camera, 80
Readies Platemaking Line, 80
Plate Casting Machine, 80

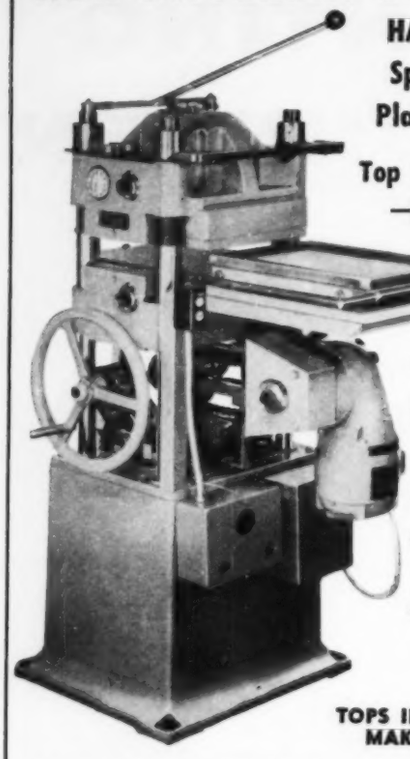


This month's *Printing Equipment Engineer* cover design was conceived by Mono-Trade Company, Minneapolis, Minn. Our friend, S. Walter Sears, is president of that company as well as Mono-Lith Company. We have often wondered how typographers can arrange what appear to be simple type elements into myriad designs. While nobody at *Printing Equipment Engineer* rates the title of typographer, nevertheless all of us do appreciate fine typography. We continue to be fascinated with the no-two-alike productions of talented men.

NEW DIFFERENT EVA-PRESS

HAS NO EQUAL
Speeds Rubber Plate Production

Top Accuracy Plates —Finest Quality



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- Three platen sizes 13" x 18"—12" x 15"—11" x 13"

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Tie All Printed Matter

The "Saxmayer" Way!

- Uses sisal, jute or cotton to tie a secure non-slip bow knot with one wrap of twine
- Ties all sizes of stacked or rolled bundles without adjustment
- 30 models and sizes—fully guaranteed

Write for details

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BLISSFIELD MICHIGAN

Equipment and *Supplies*

If you wish additional information concerning equipment, supplies and/or technical literature, please make your request to PRINTING EQUIPMENT ENGINEER, 1276 West Third St., Cleveland 13, O.

Liner Cutting Gauge

The Star Intertype-Linotype Liner Cutting Gauge announced by Star Parts, Inc., is designed to be used while cutting liners to any pica or

half-pica measure. All Intertype and all U. A. and recessed Linotype liners can be shortened to the desired length. Two styles of stops are available, one for Linotype and the other for Intertype. Both stops are marked on top with the figures "1" and "½". When the stop is positioned with the "1" nearest the end plate, the liner will be cut to a pica measure. With the "½" nearest the end plate, a half-pica measure will result. The indicator line on the side of the stop shows the length of slug for which the gauge has been set. When cutting the liner, both liner and gauge are gripped in a vise. The liner is cut with a small clearance between the saw blade and the gauge end plate. Then the cut end of the liner is filed to the contour of the end plate. Liners for measures of plus 3 pts. and plus 9 pts. can be cut by using special stops. These stops are stamped "+3", for easy recognition. For further information, please mention PEE No. 229 in your request.

Flexographic Design Rollers — Rubber-faced design rollers for flexographic printing of continuous all-over designs are available on slip-on D-Mount printing sleeves, according to an announcement by Mosstype Roller Co., Inc. The sleeves, made of alloy metal, are designed to fit interchangeably on a special mandrel or shaft by means of an assembly system. Sleeve and shaft may be disassembled at the end of a run, permitting use of the same shaft on another job. The printing surface is custom-molded with the printer's design and vulcanized to the sleeve. Rollers can be made for single and multicolor designs, in any face size up to 90 in. and any diameter to 9 in. They are pre-registered and pre-made ready in manufacture. For further details, please mention PEE No. 210 in your request.

Photo Stencils

Colorgraph Type 55 Photo Stencil Paper for making screen process photo stencils has been announced by McGraw Colorgraph Co. The paper was developed to supplement the company's standard Screen Process Pigment Paper. Colorgraph Type 55

(*Continued on Page* 10)

Ludlow Vertical Logotypes

36 Point Ludlow Tempo Heavy Condensed Logotypes
for use with ⅞-inch matrices

FOR	LBS	DOZ	YDS	PAIR	JARS	CANS	PKGS
C ea	C lb	C dz	C yd	C pr	C qt		

60 Point Ludlow Tempo Heavy Condensed Logotypes
for use with all 1¼-inch matrices

FOR	LBS	DOZ	YDS	PAIR	JARS	CANS	PKGS
C ea	C lb	C dz	C yd	C pr	C qt		

Order Your Logotypes Today

Simply circle any of the above logotypes you need for your requirements. Fill in below, tear out this page and mail to us with your letterhead for immediate shipment. Prices on request.

Number of 36-point Logotypes ordered_____

Number of 60-point Logotypes ordered_____

Name_____

Firm_____

Address_____

City_____ State_____

Generous Mills
Corn Flakes 2 PKGS 39¢

Our Own Brand
Mint Jelly 2 JARS 43¢

Bog-ripened Red
Cranberries 2 CANS 52¢

Our Special for Saturday Only
DICED BEETS 2 JARS 35¢

Cool and crisp
Cucumbers 2 FOR 29¢

For a tasty breakfast
Sliced Bacon 2 LBS 83¢

LUDLOW LOGOTYPES
are designed for use with ⅞-inch and 1¼-inch Ludlow figure matrices. In the 36, 42 and 48-point combinations 36-point logotypes are used throughout. In the 60, 72, 84 and 96-point combinations (only when 84 and 96-point figures are driven in 1¼-inch matrices) 60-point logotypes are used. In all combinations in which the cent mark is used alone, it is the standard superior "c" in that size. These logotypes will greatly facilitate handling of price figure composition. Send for full information today—there is no obligation.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

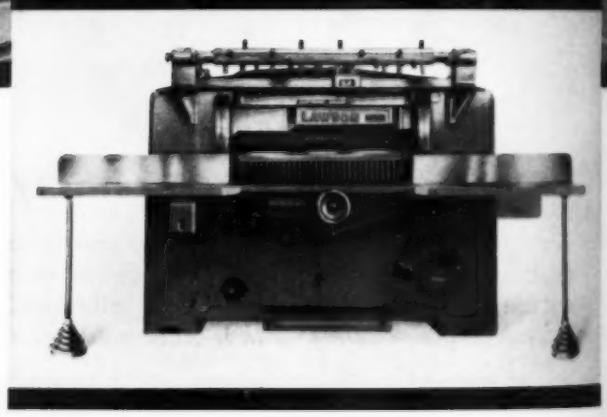
LAWSON

truly cushioned hydraulic clamping

won't mar top sheets, won't disturb alignment of lift

Here's visible scientific proof of the *truly cushioned* hydraulic clamping built into every Lawson Series V-65 Cutter. The graph of the Librascope recorder (above) shows how the clamp starts fast—slows down before contact to gently, but firmly, "kiss" the pile. Pressure is constant throughout.

Even without scientific instruments, you can make your own simple test of Lawson's *truly cushioned* hydraulic clamping action. Take any ordinary cutter, *without a lift of stock* in the machine, and put it through a complete cutting cycle. Hear that "Clang"...feel that jar and vibration! Now try the same thing on a new Lawson Series V-65. See how the hydraulic clamp just *kisses* the table—no jolt or shock—yet always with just-right clamping pressure. Here is *real cushioned clamping action!*



Lawson's efficient hydraulic clamping means rapid, exceptionally accurate paper cutting with less spoilage—more profits for you. Fact-filled, illustrated brochure on the new Lawson Series V-65 Hydraulic Clamp Cutter—46", 52", 55"—is yours for the asking. Write today.

Pioneers in Paper Cutting Machinery since 1898

E. P. LAWSON CO. main office: 426 West 33rd Street, New York 1, N. Y.

CHICAGO: 628 So. Dearborn Street • **BOSTON:** 176 Federal Street • **PHILADELPHIA:** Bourse Building

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"The Hurletron has opened up more color business for us. Without it, it would have been impossible for us to turn out the amount or the quality we do."

RALPH E. SKINNER, *Supt. of Pressroom, PEORIA JOURNAL STAR*

Hurletron Controls were installed on the presses of the Peoria Journal Star in February, 1955. Ralph Skinner tells they're doing a fine job. He'll tell you a lot more, too . . . that they maintain accurate register of all colors, automatically, within a few thousandths of an inch . . . reduce "registering-in" time . . . increase hourly production . . . cut costs. And that's the story you'll hear wherever Hurletron Controls are in use.

- **Hurletron is the only automatic color register control now in use on newspaper presses in the United States.**
- **Hurletron is the only automatic color register control specifically designed for ROP color.**
- **Hurletron is the most economical to install, operate and maintain.**

Hurletron Controls build advertising lineage through improved quality of reproduction. Let us give you the details. Write today. There's no obligation.

ELECTRIC EYE EQUIPMENT COMPANY

1930 EAST FAIRCHILD STREET

DANVILLE, ILLINOIS

Manufacturers of: Hurletron ROP Color Registration Controls, Automatic Controls of Caliper and Weight on Paper and Board; Center Line and Side Web Guide Controls; Cut-off and Back-Up Controls; Slitter Controls; Moisture Controls.

HURLETRON

AUTOMATIC
REGISTER CONTROL

FOR R.O.P. COLOR

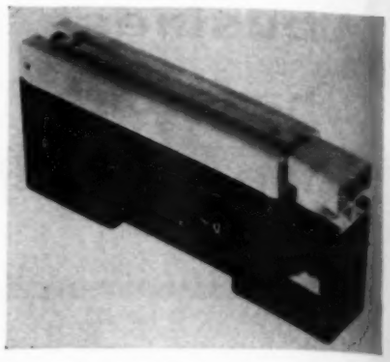
Equipment & Supplies

(Continued from Page 6)

is used where thick stencils or short exposure times are desirable. Except for the reduction of exposure times, the procedure for preparing stencils, is the same as that used in handling the Screen Process Pigment Paper. The stencil paper is transparent red in color and is packaged in rolls 40 in. wide by 12 in. long, with complete working instructions included in each roll. For further details, please mention PEE No. 184 in your request.

Portable Psychrometer

A motor driven portable psychrometer for determining relative humidity has been developed by the Friez Instrument Div. of Bendix Aviation Corp. The Psychron, powered by three flashlight batteries, is constructed of a matched wet and dry bulb thermometer assembly ventilated by a tiny fan coupled to a motor. The thermometers are said to attain an accuracy of plus or minus 0.3 deg. F. at any point. It is also claimed that the instrument is immune from radiation effects of the sun, and is equipped with a thermometer illumination system for reading in the dark. The Psychron weighs 2½ lbs. and is 10 in. long, 4-5/16 in. high, and 1-13/16 in. wide. The unit is equipped with a three bladed aluminum fan which pulls in air at the rate of more than 15 ft. per sec. across the thermometer bulbs. The thermometer bulbs are placed within a removable air intake that provides



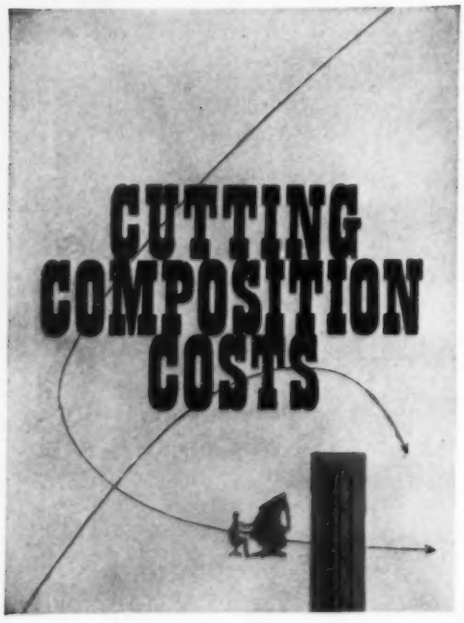
thermal shielding. The Psychron operates in a relative humidity range of from 10% to 100% and a temperature range from 10 deg. F. to 100 deg. F. Standard accessories included are a metal carrying case, a Nylon neck strap, an instruction manual, psychrometric tables and slide rule. Spare thermometers, wicks, lamp bulbs and 2 oz. water bottles are available as optional accessories. Color scheme is white, red and charcoal gray. For further details, please mention PEE No. 180 in your request.

Tabbing Timer

Hobson Miller, president of Miller-Lauffer Printing Equipment Corp., announced the newly improved Electro-Mechanical Timer for the Tally-

Tab Automatic Counter and Tabber. The timer is snapped in and out of the base of the Tally-Tab. The portable Tally-Tab is rolled to the delivery table and set to count off 25, 50, 100, 250 or 500 sheets. The actuator is connected with the impression cylinder of the press which results in a long paper tab being inserted automatically into the delivery pile at the pre-set intervals. Special timers are also available to count and tab any required numbers other than those on the standard timer. These timers may be reset to zero. They are supplied with a makeup switch to

(Continued on Page 14)



HERE'S THE ANSWER!

▶ FOR THE COMMERCIAL PLANT
▶ FOR THE TRADE PLANT
▶ FOR THE NEWSPAPER PLANT

The new 12 page illustrated booklet "Cutting Composition Costs" contains the answer to one of the most troublesome of composing room problems—the reduction of time, waste and spoilage incidental to the hand sawing of slugs. It explains in detail the many advantages of automatic slug sawing—with a Mohr Saw attached directly to the linecasting machine.

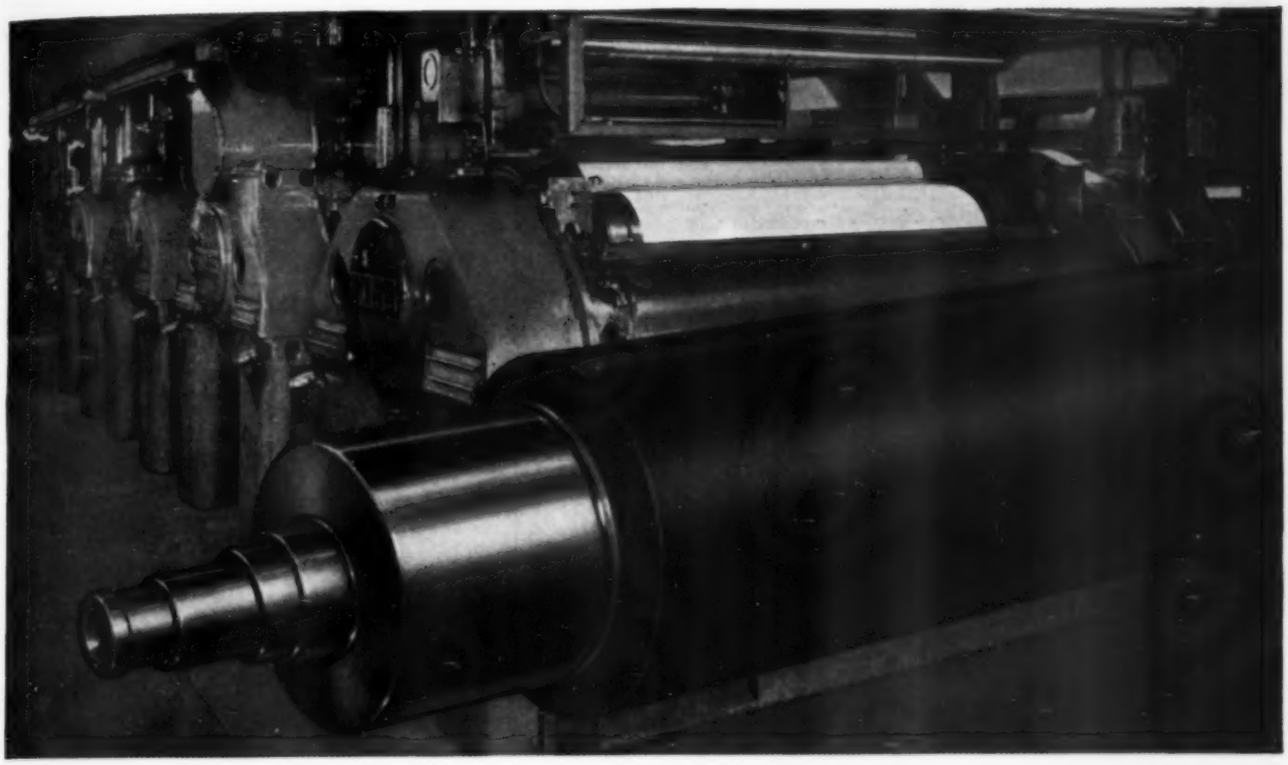
Mohr LINO-SAW COMPANY
8015 North Ridgeway Avenue
Skokie, Illinois

Mr. Composing Room Executive

Let this booklet tell you how efficiency can be increased and costs can be cut by automatic slug sawing with the Mohr Saw. Send today for your copy of "Cutting Composition Costs."

NEW COMPOUNDS RESIST PITTING, COLUMN SCORING

in DAYCO GOLD SEAL* *Newspaper Rollers*



Reduce the cost of roller maintenance with all-new, more resilient Dayco Gold Seal Newspaper Rollers. Dayco Rollers resist the pitting and column scoring which necessitate frequent, costly roller regrinding because they're made of entirely new synthetic rubber compounds possessing really amazing resilience.

This long-lasting ability to give under pressure, then return to their original shape, plus excellent tensile strength, means Dayco Rollers keep their smooth surface longer. Result: maintenance and regrinding costs go way *down.*

To assure you perfect inking of halftones, solids and type through every run, the newly developed compounds in Dayco Rollers keep their accurately rounded, ink receptive surface on the hottest, fastest press runs.

In addition, special fire resistance built right into Dayco Rollers helps increase press room safety because they will not support combustion.

Order a set of the all-new Dayco Gold Seal Newspaper Rollers. Comparison will prove their many money-saving advantages. Ask your Dayco Representative about the phenomenal Dayco Color Separator . . . lets you run countless ROP color combinations . . . confines misting. Or write direct to The Dayton Rubber Company, Dayco Division, Dayton 1, Ohio.

Dayco Rollers . . . for Offset, Letterpress, Gravure, Analin, Coating, Graining, Steel Mills. Dayco Offset Blankets, Dayco Fountain Dividers, Dayco Color Separators.

© D. R. 1956 *T. M.

Dayton Rubber

51 YEARS OF PROGRESS

West Coast Distributor, Tillicum Rubber Co., Lacey, Washington

Graphic Arts Equipment and Supplies

Literature for the Asking

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please ask for the pieces selected by number and send your request to Literature Dept., *Printing Equipment Engineer,* 1276 West Third St., Cleveland 13, Ohio.

Composing Room

INTERTYPE TYPE FACES

Intertype Corporation has published a 20 page booklet of alphabets and special alternate characters made for each of 187 leading Intertype faces available for use on linecasting machines. Faces are shown in 10 pt. size only and listed alphabetically without regard to the combinations in which they are made on Intertype matrices. Included in these showings are complete alphabets with caps, lower case, figures, points, small caps and old style figures on many faces as well as swash caps and special alternate characters which are made for each of the fonts. For a copy, please mention PEE No. 217L in your request.

TYPE SPECIMEN SHEET

A specimen sheet of the complete alphabet of two new display sizes of Times Roman and Bold, 18 pt. and 24 pt., is available from Mergenthaler Linotype Co. The sheet is designed to be inserted in Linotype's Times Roman specimen booklet, and completes the range of sizes, 5½ pt. to 24 pt. The face was designed by Stanley Morison for use in the *Times* of London. For a copy, please mention PEE No. 218L in your request.

Platemaking

RADIAL ARM ROUTER

The S. R. Littlejohn Router, available through Henry P. Korn, is illustrated and described in a four page bulletin. The head is operated at 20,000 r.p.m., with a ¾ h.p. motor. Illustrations include a close-up of the table showing arrangement of the lamps and the ¼ in. plate glass protector; a view of the underside of table; and two views of the cutter head. Also included in the bulletin are illustrations of the S.R.L. Ace Cutters for copper and for zinc. Specifications of the router are also listed. For a copy, please mention PEE No. 219L in your request.

ZINC ALLOY

A small size, four page bulletin, descriptive of its Micro-Metal zinc alloy, has been published by Rolled Plate Metal Co. Micro-Metal can be used for powderless and conventional etching. It is fine grained, non-buckling and is said to have dimensional stability. Included in the bulletin is a description of how Micro-Metal is made. For a copy, please mention PEE No. 220L in your request.

GRAVURE LAMP

A two page, two color leaflet has been released by nuArc Company, Inc. descriptive of its G-150 Gravure Lamp. The lamp is automatic and motor driven and is equipped with a two way reflector. The arc lamp is operated on 195-250 v., 60 cy., single ph., a.c. current. Included in the leaflet are illustrations and specifications. For a copy, please mention PEE No. 221L in your request.

KODAK FORMULAS

A revised publication, *Kodak Formulas for the Graphic Arts,* is descriptive of how to mix special or small amounts of solution for photomechanical work. Information included in the pamphlet is control of Kodalith developer, descriptions of the Kodak magenta masking method, and reversal processing of Kodalith materials. There are major sections on developers, stop and fixing baths, intensifiers and reducers, and formulas for special processes. The 12 page pamphlet, 8½ in. by 5⅝ in., is punched for insertion in the Kodak Graphic Arts Handbook. For further details, please mention PEE No. 222L in your request.

MAGNESIUM PATTERN PLATES

A two page, 8½ in. by 11 in. bulletin on magnesium pattern plates for the corrugated box industry has been published by the Oshkosh Engraving Co. Generally there is more sell than technical data, but the bulletin does contain a list of the advantages of letterpress reproduction and of advertising on corrugated boxes. Please mention PEE No. 223L in your request for a copy.

Pressroom

WEB FEED LETTERPRESS

Hess & Barker recently released a folder on its web-fed perfecting letterpress. Illustrations of features of the press as well as an overall view of the press itself, are included. Also shown is how the press can be converted from a two color letterpress to a four color by addition of a few parts. By the addition of another unit, four colors can be printed on both sides of the web. The double fold folder is printed in colors. For a copy, please mention PEE No. 224L in your request.

DAVIDSON DUAL-LITH

Davidson Corporation, subsidiary of Mergenthaler Linotype Co., announced publication

of a colorful illustrated brochure which is descriptive of its Davidson Dual-Lith Model 233. The machine takes sheets up to 14 in. by 17½ in. Other features of the press are two cylinder design and removable segments. Illustrations, specifications and descriptive data are included in the folder. For a copy, please mention PEE No. 228L in your request.

OFFSET ROLLERS

A four page bulletin is descriptive of Ideal Roller & Mfg. Co.'s Graytone Rollers for offset presses. Some of the features listed are less ink adjustment during run, consistent color intensity, and no roller resetting. Also included in the bulletin is a list of sales offices and selling agents. The bulletin is printed in three colors. For a copy, please mention PEE No. 226L in your request.

ATF-KELLY PRESS

American Type Founders recently issued the Kelly Three folder descriptive of ATF-Kelly letterpresses. Contained in the eight page, two-color folder are sketches, photographs, range of operation and specifications. The ATF-Kelly Three produces 6 in. by 9 in. pages 8 up or 16 up; 9 in. by 12 in. pages 4 up or 8 up; broadsides and folders to 22½ in. by 35 in. and larger, if desired. For a copy, please mention PEE No. 227L in your request.

INK DATA SHEETS

Three Flexographic Ink Technical Data Sheets have been released by Bensing Bros. and Deeney. Each sheet is descriptive of a single type of ink with general characteristics, fields of application and recommendations for

(Continued on Page 72)

Literature Request Coupon

After you have selected the literature described in these pages which you would like to have sent to you, please jot down the identification numbers on this coupon and mail to

PRINTING EQUIPMENT *Engineer*
1276 West Third St., Cleveland 13, Ohio

Literature Number (s) _____

_____

Your Name and Title _____

Company Name _____

Street Address _____

City _____ Zone _____ State _____

9-56

. . . . . selects Headliner® for Color and Growth

The *Palo Alto Times* is one of the fastest-growing suburban daily newspapers in the country. Since 1945 its circulation has increased from 7,529 to more than 27,000; advertising linage from 3,600,000 to over 10,870,000 lines annually.

Prospects for the future are equally bright. Such outstanding firms as Eastman Kodak Company, Lockheed Aircraft Corporation, General Motors Corporation and General Electric Company have selected the Palo Alto area to locate major plants. Further light industrial, commercial and residential development of Stanford University lands and adjacent territory will maintain Palo Alto as a leading California market.

To remain abreast of this phenomenal growth, the *Palo Alto Times* has selected a three-unit Goss HEADLINER press equipped with a color cylinder and double delivery folder.

Palo Alto's is indeed a story of growth and progress, and the HEADLINER will enable the *Palo Alto Times* to keep pace with this outstanding community.

THE GOSS PRINTING PRESS CO.
5601 West 31st Street, Chicago 50, Illinois

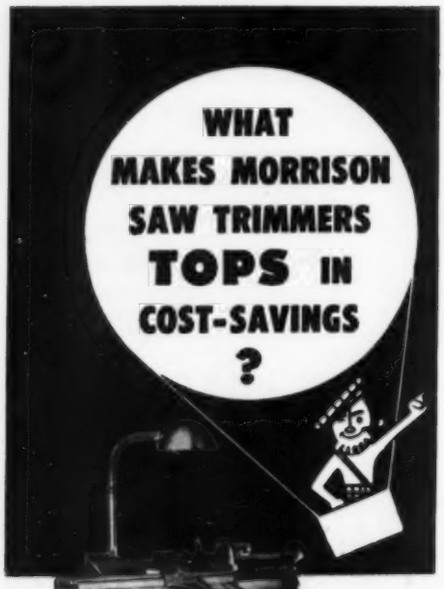
Equipment & Supplies

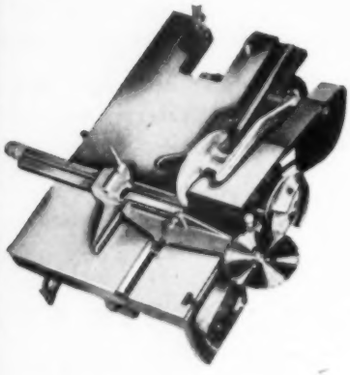
(Continued from Page 10)

correct the count for misses in the press or for sheets pulled out for inspection. For further details, please mention PEE No. 214 in your request.

Offset Prevention Spray System

American Type Founders has developed the ATF Liqua-Spra, an offset prevention liquid spray system, it was announced by William W. Fisher, vice president in charge of sales. Five different Liqua-Spra units are for sheet sizes up to 72 in. It is said that low air pressure operation results in less off-spray. Tripping grips are designed for each make and model press. Controls are supplied for adjustments of the spray area, amount of dwell and proper mixture of air and liquid. The units are of brass, stainless and monel steel. Liqua-Spra models number 11, 12 and 13 are for sheet sizes up to 42 in. Model No. 11 is a floor bracket type with single spray head and air cleaner with brass and Nylon register, and pressure gauge. Upright and cross arm telescope is supplied to permit raising or lowering and moving in or out. Model No. 12 is a single press bracket unit with similar features. Model No. 13 is a portable combination unit with single spray head, ⅓ h.p. motor, air compressor and air tank, and base mounted on steel plate with four casters. Unit is equipped with air hose. On all three models, cross arms and uprights are nickel plated. ATF Liqua-Spra models 12-12 and 12-2 are for sheet sizes through 72 in. Model 12-12 is a double press bracket unit, one on each side of the delivery frame, with single spray head attached to each arm. Model 12-2 is a single press bracket type with two spray heads, one attached to each telescoping arm. For further details, please mention PEE No. 211 in your request.





Do-it-Yourself Saw Grinding Attachment

Actually this Saw Grinding Attachment alone will eventually pay for your Morrison Saw Trimmer! You'll avoid all outside expense and chargeable labor time keeping blades sharp. Anyone in your plant can sharpen your saw blades with this simple, accurate grinding attachment — in less time than required to change blades on other machines. Another saving — Morrison Patented Universal Saw Blades cut 3 to 5 times more material between sharpenings.

Write for complete catalog on Morrison Saw Trimmers illustrating many other features that make them your best investment for composing room efficiency. Four models fit every plant, every budget.

THE *Morrison* COMPANY

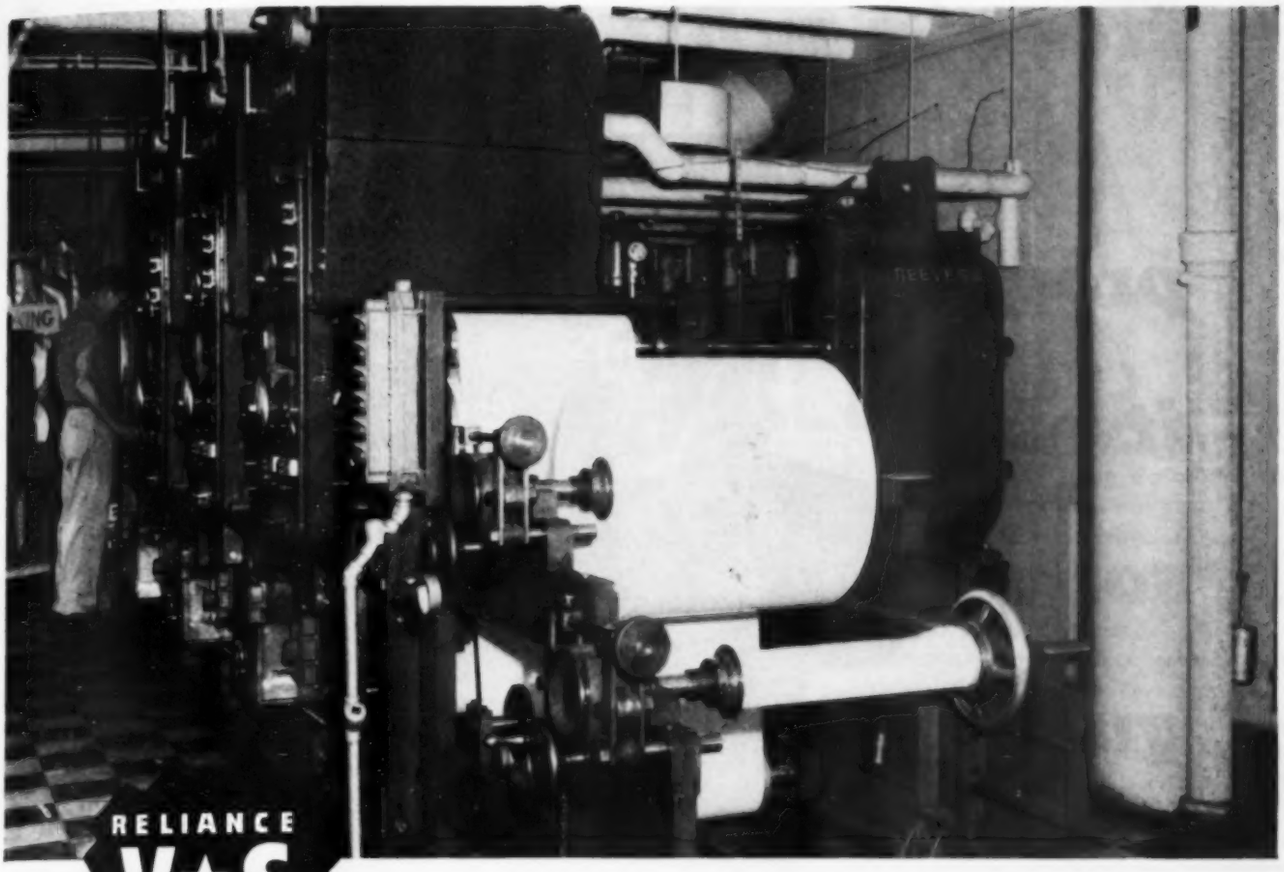
125 W. Melvina Street • Milwaukee 12, Wis.

Tipp Manufacturing Co. has redesigned a trolley for more efficient operation of cable conveyor system furnished by the firm. This trolley also permits easier installation, adjustment and maintenance. Wheels on the redesigned trolley may be quickly and simply changed by removing a bolt, grip nut or lock washer and plain nut. Each side plate is now one piece of 11-gauge pressed steel. Two new standard attachments, which together will provide the basic suspension for most applications, are available with the new trolley. These attachments are secured by single bolts through holes at the bottom of the side plates, and may be put on or taken off the trolley, or adjusted, without disturbing the trolley assembly. Both attachments may be bolted rigidly or permitted to swing. For more information, please mention PEE No. 203 in your request.

Silk Screen Printer

The Pace Manufacturing Co. recently announced a silk screen process printer called the Master Process Printer. The press is for short runs and 1500 prints per hour is claimed by the manufacturer. Two models are available with maximum printing areas of 16 in. by 24 in. and 24 in. by 30 in. The Master Printer is used to print tissue sheets and stock up to 1½ in. thick. Ink is regulated either controlled full floor or regular at operators selection without stopping press. The press is equip-

(*Continued on Page* 18)



RELIANCE V★S DRIVE®

SHAVES PRODUCTION COST OF RAZOR BLADE ENVELOPES 35%

800 lb. rolls of paper 20½" wide are hoisted on a roll stand at one end of a rotogravure press. A web feeds automatically to the printing unit through an eccentric die-punch and to a rewind unit.

12 rolls of envelopes are printed the width of the web.

45 million razor blade envelopes are printed, die-cut, slit and rewound each month with an estimated savings of 35%.

Reliance V★S Drives are the major factor in this remarkable installation.

Power is supplied from one central 20 hp. drive. Web tension is controlled by the variable speed drive under regulation of a dancer-roll.

This representative Reliance V★S Drive installation, solving a difficult operating application, provides infinite adjustment of wide range, variable speed; jogging; creeping; smooth acceleration and deceleration; and dynamic braking. What's *your* drive problem?

D-1511

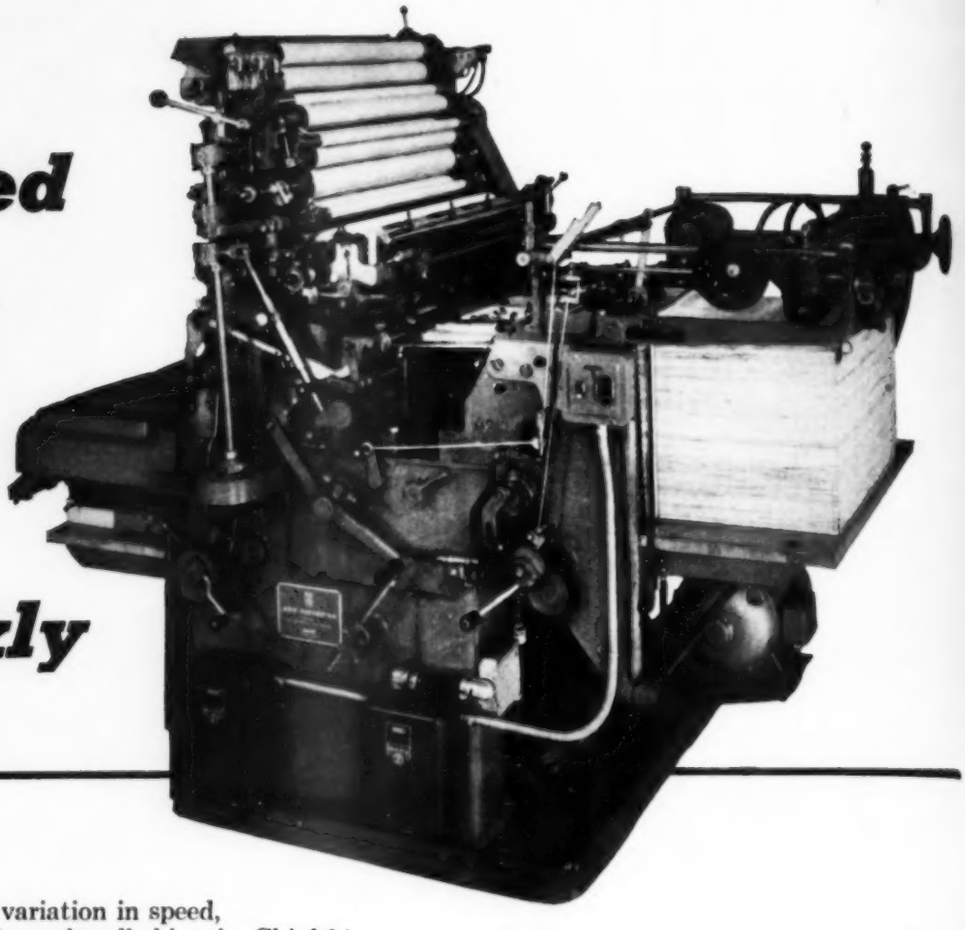
Write for bulletin D-2311.

RELIANCE ELECTRIC AND ENGINEERING CO.

DEPT. 129A CLEVELAND 10, OHIO • Canadian Division: Welland, Ontario

Sales Offices and Distributors in Principal Cities

Here's why the Chief 24 proved itself so quickly



Consider the wide variation in speed, size and sheet thickness handled by the Chief 24, as indicated by the specifications shown here, and you'll quickly see how this tremendous versatility has established the Chief 24's reputation as the outstanding all-round offset press in its size range.

But versatility is only *part* of the story on the Chief 24. Every possible provision has been made in this press for simplicity of operation and maintenance to assure a steady high and dependable rate of daily output. All press controls are within easy reach of the pressman for efficient, tireless operation... all controls afford virtually microscopic adjustment for smooth feeding, hairline register and uniform flow of ink and water.

Why not look into the Chief 24 as a means of supplementing your present equipment... as a means of expanding your business?

SPECIFICATIONS

Sheet size . . . . . 8½" x 11" to 17¾" x 24½"

Printing area . . . . . 17⅜" x 24⅜" maximum (except trip-off sheet)

Speed range . . . . . 2700 to 6000 IPH

Stock range . . . . . Onion skin to 6-ply cardboard

Floor space (with extreme extensions and largest motor) . . . 56" x 77"

Adjust-O-Matic Stepless Speed Control

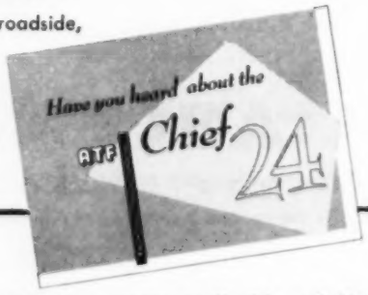
Automatic Wash-up Device

Stream Feed

Ask your ATF salesman for complete specifications or write for literature today. American Type Founders, 200 Elmora Avenue, Elizabeth, N. J.

FREE SPECIFICATION FOLDER

This 17¾" x 24½" four-color broadside, a sample of standard production on the ATF Chief 24, is yours for the asking. Write for it today or contact your ATF Sales Representative.



ATF

3494

Better... more profitable printing from the most complete line of equipment

The surest way to more printing production profits is to increase output of your present equipment without sacrifice in quality. And, if you can improve quality at the same time, you are competition and hard to beat!

ANNOUNCING

THE NEW, REVOLUTIONARY
OXY-DRY SHEET CLEANER

You BUY MORE PROFITS when you purchase the OXY-DRY SHEET CLEANER. Actual tests* show that your presses will deliver about 5% *more* impressions per hour, you'll stop the presses for wash-up about 12 times *less* per shift, save about 100 press sheets and the ink wasted in restarting after washups. This means that inside one year the OXY-DRY SHEET CLEANER will pay for itself...after that, it's all profits for you. Maintenance, repair and service will be negligible...the equipment is engineered to last the life of the press.

The OXY-DRY SHEET CLEANER is the *only* sheet cleaner that uses both air and suction ★ Operates within ⅛" of sheet for positive consistent cleaning action ★ Improves register control ★ Dry spray can be used *every* time sheet goes through the press ★ Can be installed in two hours on either web or sheet fed presses ★ Flexible—one vacuum-blower differential unit can be moved from press to press to operate any OXY-DRY cleaner head in your plant ★ Successful installations have been made in Meredith Publishing Co., Kable Bros., Popular Mechanics and other leading printing plants where speed and quality are constant aims...Increased profits they are getting can be yours too ★ To get more information on OXY-DRY SHEET CLEANERS, write, wire or phone us now.

* 5 Color Cottrell 36" x 48"—Sheet Fed
More details on request

Patents granted and Pending
Copyright 1956

OXY-DRY *means more profits for the graphic arts industry*

OXY-DRY SHEET CLEANER CORPORATION

1134 West Montrose Avenue, Dept. PE, Chicago 13, Illinois

NEW YORK **CHICAGO** SAN FRANCISCO

Photo below shows close-ups of the OXY-DRY SHEET CLEANER vacuum-blower head and head face.

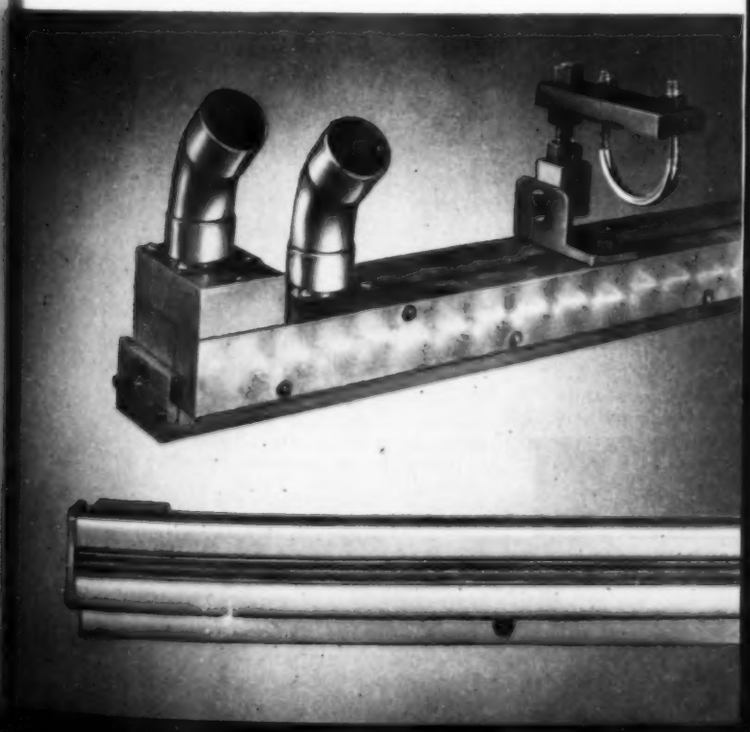
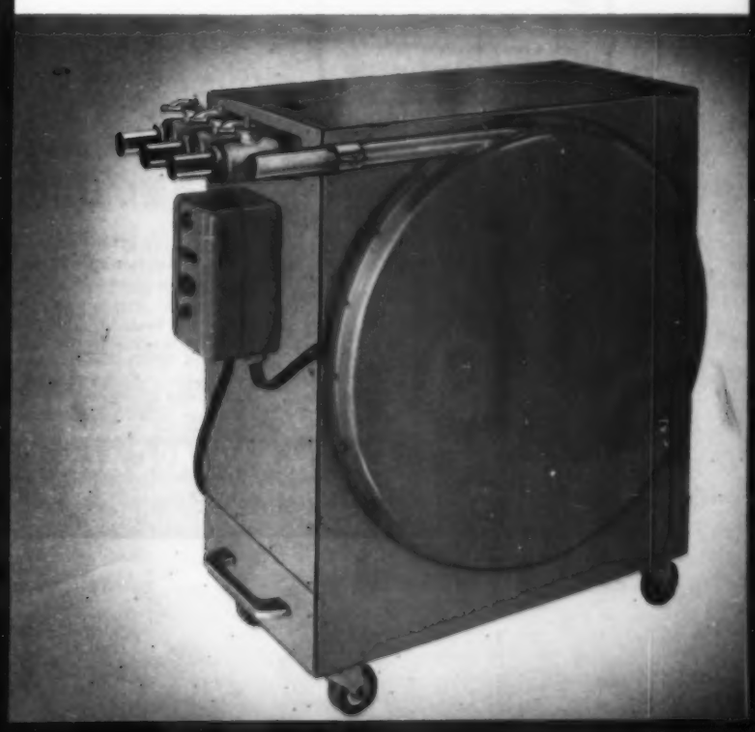


Photo below shows the vacuum-blower differential unit for the OXY-DRY SHEET CLEANER



Equipment & Supplies

(Continued from Page 14)

ped with plain or spool type grippers controlled by vacuum. Open feeding time is 3/5 of the complete printing cycle. For further details, please mention PEE No. 200 in your request.

Gray Contact Screen

A gray contact screen, usable interchangeably for offset, photoengraving, platemaking and silk screening, was announced by Seymour Schwartz, president of Caprock Developments. The screen is said to produce all steps of the gray scale from flat or contrasty copy. The Universal screen is also said to provide variations in contrast by changing the tone scale proportionately. The screens are gray and are neutral to color which permit a camera man to shoot colored copy for reproduction in black and white. Universal screens are available in angled rulings to 19 in. by 23 in. Universal screens are used as are conventional offset or engraving contact screens, stated Schwartz. The contact screens are available in the follow rulings: 32, 45, 55, 60, 65, 75, 85, 100, 120, 133, 150 and 175 lines per in. Standard sizes range from 8 in. by 10 in. to 22 in. by 23 in. For further details, please mention PEE No. 206 in your request.

WRITTEN GUARANTEE WITH EVERY INSTALLATION

- Get more, cleaner, impressions per hour
- Reduce reject sheet waste
- Completely automatic—accurate—dependable
- Easily adaptable to any type press
- Only one finger-tip setting for positive control
- Complete air operation . . . no moving parts

STOP OFFSET SPRAY MATERIALS

POWDERS—Compounded especially for anti-offset sprays. Pure vegetable compound—no minerals or grit. Free flowing and moisture resistant. Available in controlled particle sizes for any type work.

LIQUID—Available in light, medium, heavy, and extra heavy grades. Non-inflammable, non-toxic, non-abrasive. Won't freeze. Flows freely . . . non-settling.

A "Printer Design" Tailor-Made for the Individual Press. One simple adjustment—normally set in 3 seconds—provides a dependable, full-coverage, controlled dry spray that definitely prevents offset . . . turns out a better printing job faster. Regardless of the size of your shop; the make of press in service, or the type of printing in which you may specialize, OMC has a specific model of Stop Offset dry spray equipment to fit your needs.

Nearly 10,000 shops the world over are equipped with OMC stop offset spray equipment. This is proof positive of absolute dependability.

Available thru leading Graphic Arts suppliers.

Write for FREE folders and literature describing in detail OMC Stop Offset equipment.

NEW . . . CLEAN . . . LOW PRESSURE

OMC LIQUID SPRAYER

True LOW PRESSURE • Easily adaptable • Adjustable Pattern • Definitely Cleaner

IMPROVED . . . to give Clean, dependable performance at true LOW PRESSURE . . . only a low 12 pounds air pressure required for full coverage spray pattern! All you do with an OMC Liquid Spray Unit is set it and forget it. Eight efficient models available for any size press, plus essential accessories for greater efficiency. Write for new, descriptive folder giving complete details.

OMC
ORTMAN McCAIN COMPANY
Specialists in Offset Stopping Equipment
1330 West Washington Blvd. • Chicago 7, Illinois

Large Hole Paper Drilling Machine — A special machine for the high speed hole drilling from 9/16 in. up to 1½ in. diam. in paper and allied substances has been announced by the Challenge Machinery Co. In the packaging industry the machine is used for perforating paper bags and providing circular cut-outs for paint can labels. In addition to paper, similar materials such as leather and cloth have been successfully drilled. The unit will drill a 2 in. thickness of stock in a few seconds. The drill is electric. A hydraulically powered head automatically lowers and drills the stock when the foot pedal is depressed. Sideguides operate automatically and permit spacing the holes laterally to any spacing desired. For further details, please mention PEE No. 183 in your request.

Presensitized Offset Plate

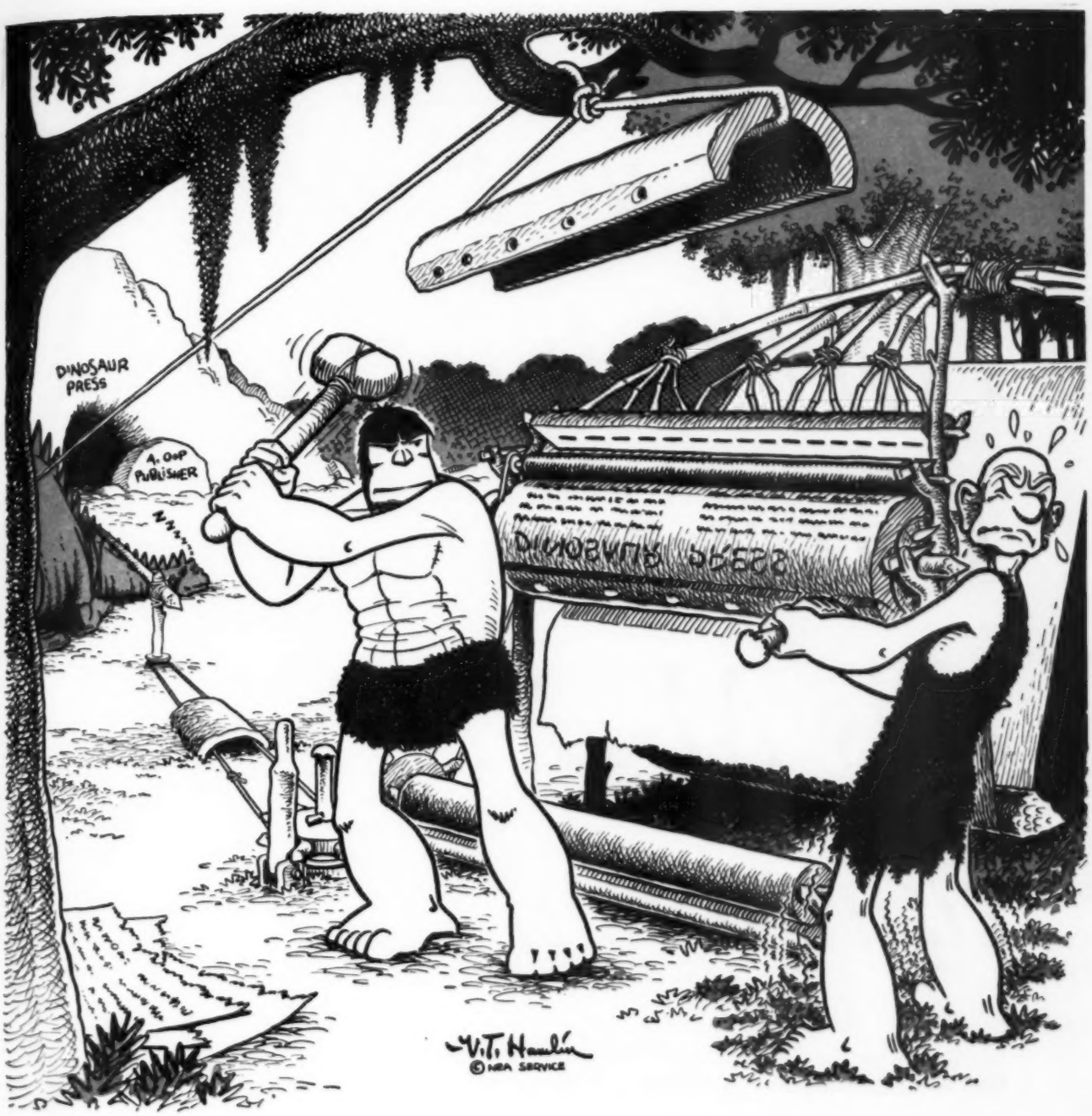
A presensitized non-metallic offset plate has been announced by Polychrome Corporation. After a 20 sec. exposure under a 35 amp. arc, the Polykote Plate is mounted on the press, rubbed up with Polykote Rapid Desensitizer and the run is started. The plate is for medium runs of line work, Ben Days and halftones. The plate is said to be durable and will take deletions without toning or weakening. For further details, please mention PEE No. 207 in your request.

Deep Etch Chemicals Kit

Jones Graphic Products Co. has introduced a new line of deep etch coating solutions and associated chemicals for offset platemaking. The chemicals, which are offered in an introductory kit, include coating, developing and etching solutions; non-blinding lacquer; developing ink; and developing and etching pads. Field testing of the JGP deep etch line has been in process since 1954.

Since the pads should never be contaminated with water, the plastic handles are removable for easy clean-

(Continued on Page 26)



Quick, simple underside lock-up

One movement of a lever unlocks or locks the plates on the printing cylinder . . . quickly, easily. And Hoe's underside lock-up holds plates tight . . . prevents plate hammer and buckling. With this important feature, you get better, cleaner impressions . . . longer.

HOE UNDERSIDE LOCK-UP construction is simple, sturdy and allows a complete range of adjustment from maximum paper width to a minimum of 56 inches. Changes in web width are easily made by rearranging the clamping hook assemblies to suit, without the necessity of machining or removing the cylinders from the unit.

In fact, Hoe engineers have incorporated easy web width change features throughout its press design . . . another potential way to help lower your printing costs, and another good reason it will pay you to get in touch with Hoe.

R. HOE & CO., INC.

910 East 138th Street, New York 54, N. Y.
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.

Hoe is now sole North American source for this M-A-N equipment

Hoe will supplement its own line of Graphic Arts Equipment with the outstanding equipment being manufactured by M-A-N of Augsburg, West Germany. Hoe's engineers, after the most extensive study, decided that the M-A-N line has by far the most to offer North American printers. Fresh new engineering approaches in M-A-N equipment give it top performance. It will pay you to investigate this M-A-N equipment by getting in touch with Hoe.

• ***M-A-N Plate Casting Machines*** — New and exclusive pressure casting technique permits casting temperatures up to 50 degrees below comparable operations, and it reduces the amount of stereo metal required per plate by almost half. No comparable equipment comes anywhere near its economy. Available in semi-automatic and full automatic models to meet all production requirements.

• ***Multopress Automatic Hydraulic Matrix Press*** is built in 1000-ton capacity with 25" x 30½" platens for extra heavy duty job and newspaper work, 800-ton capacity with 25" x 30½" platens for heavy duty newspaper, job and magazine work, and 550-ton capacity with 20½" x 26½" platens for job and magazine work. It may be arranged for steam or electrical heating and meets a wider range of requirements than any other molding press on the market today.

• ***M-A-N Web Offset Press.*** Supplementing Hoe's press line, the M-A-N web-fed offset press is designed to produce huge or medium-sized editions such as telephone books, catalogues, magazines, etc. at high speed without sacrifice in quality. It can be equipped for sheet delivery or folded product as desired.

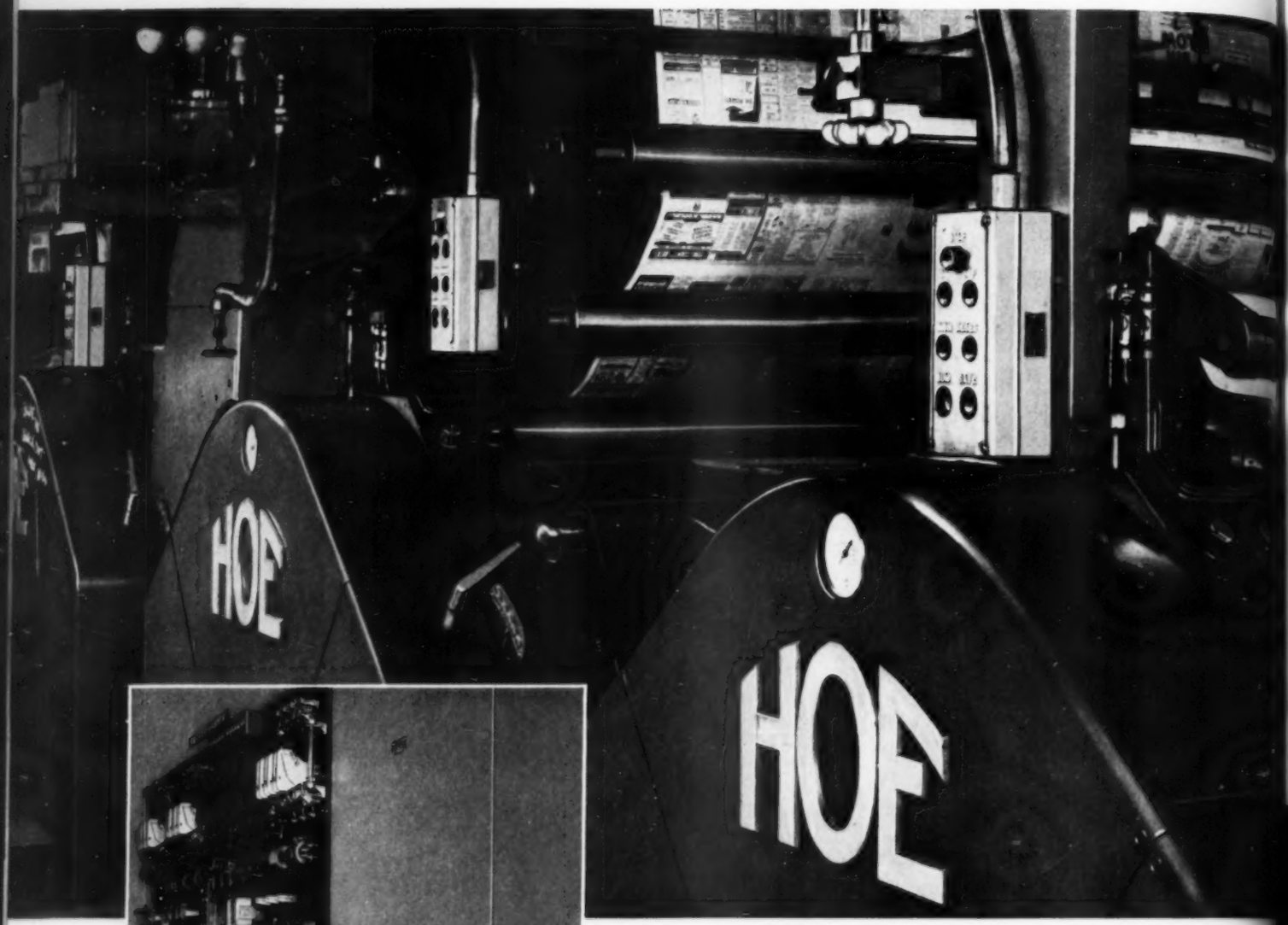
• ***M-A-N Rotogravure Press (narrow width).*** Heavy duty rotogravure web presses for single and multi-color printing of fixed or variable formats with sheet delivery — re-reeling device — folders for double and multi-folds — and stitching device. Suitable for the printing of magazines, posters, wrapping paper, parchment and cellophane.

• ***M-A-N Letterpress Magazine and Book Press.***
The M-A-N web-fed, sheet delivered, rotary book printing press prints 12,000 30 11/16" x 41¼" sheets per hour. It has a complete printing unit for first side printing and another complete printing unit for second side printing plus an imprinting cylinder for spot color.

and also see Hoe for this additional M-A-N equipment: a curved plate shaving machine, flat and curved routing machines, and a straight edge trimming machine.

R. HOE & CO., INC.
910 East 138th Street
New York 54, N. Y.
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO • BIRMINGHAM • PORTLAND, ORE.

Newark Star-Ledger



Newark, N. J., Star-Ledger installs new 6 unit one folder Hoe Press equipped with Cutler-Hammer Unit Drive. View of press shown above. Cutler-Hammer Control for C-H unit drive shown at side.

CUTLER-HAMMER
WEB BREAK DETECTORS

Stop press quickly if web breaks. Web can be rethreaded without latching detectors. Easy to mount.

CUTLER-HAMMER
WEB SEVERING DEVICE

A Cutler-Hammer "original" that has resulted in greater total savings than any other single accessory. It instantly slashes broken web close to impression and guards against destructive wrap-arounds and costly delays—resets automatically.

Keep it Simple—Keep it **STURDY**

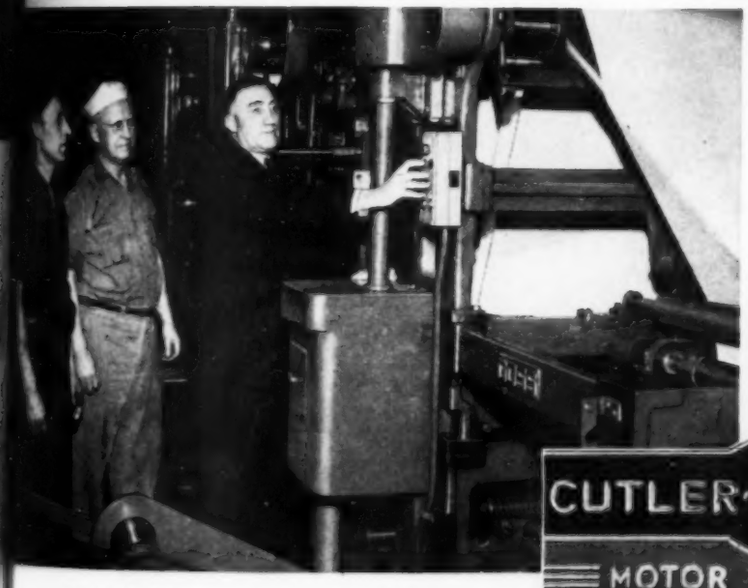
r turns to the Keep-it-Simple C-H unit press drive

"All roads may lead to Rome"—but experienced travelers pick the SMOOTH road. The Star-Ledger chooses for its *newest* press addition the Cutler-Hammer Unit Drive system.

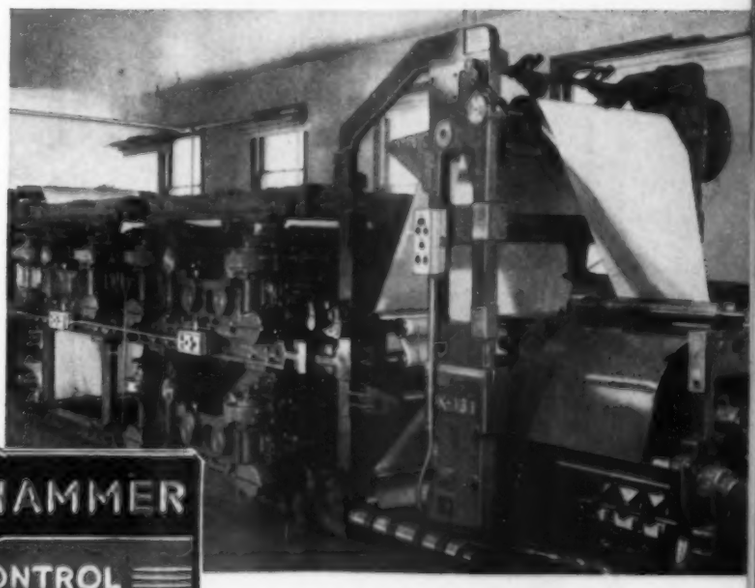
In fact, during 1954, '55 and '56, at least twenty-six metropolitan newspaper publishers (list on request) selected Cutler-Hammer Unit Drives for new or additional press installations.

Check into this selection of the "SMOOTH Road". It's the unit press drive *any* plant electrician can manage.

CUTLER-HAMMER, Inc., 1460 St. Paul Ave., Milwaukee 1, Wis.



Marshfield, Wis., News Herald has Cutler-Hammer Drive on Goss Dek-A-Tube Press.



Ludington, Mich., Daily News installs Goss Dek-A-Tube Press with Cutler-Hammer 2-Motor Press Drive. This is similar in type to many Magazine Color & Roto Printing installations C-H equipped.

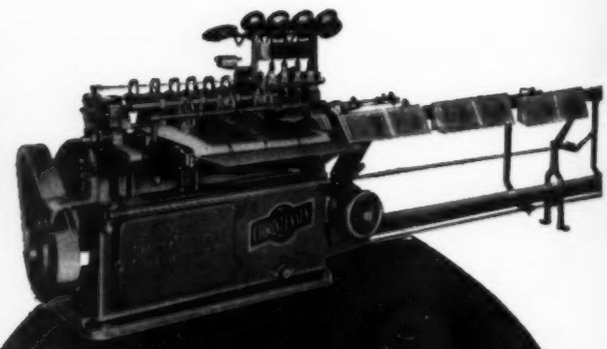
CUTLER-HAMMER
MOTOR CONTROL
C-H

Keep it **CUTLER-HAMMER**

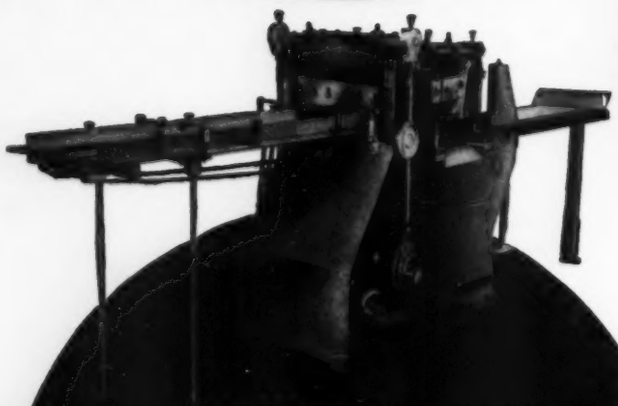
DEXTER

Folding, Stitching, Trimming... for a Profit!

FOLDING is the first step in achieving profits from pamphlets . . . and Cleveland Folders, available in a wide range of sizes, are the standard of the industry. Precision-built, of top quality materials and workmanship, every Cleveland is designed for many years of high-quality, high-speed production.



GATHERING & STITCHING of folded signatures is the next step to bindery profits. The Christensen Gang Stitcher, in the model best suited to your needs, will gather and saddle stitch as fast as operators can feed it . . . up to 7500 books or gangs per hour with McCain Automatic Feeders . . . with unvarying accuracy and reliability.



TRIMMING with the McCain Automatic 3-knife Trimmer not only increases profits but saves floor space and handling expense. Untrimmed books from the Christensen Gang Stitcher are automatically conveyed to the McCain Trimmer where 3 sides are trimmed, and finished books delivered ready for wrapping or packing. Books can be trimmed at speeds up to 7500 per hour. Attachments are available for cutting apart books stitched two-up or with bleed trim.

ILLUSTRATED CIRCULARS ARE AVAILABLE FOR ANY OF THE ABOVE MACHINES

DEXTER FOLDER COMPANY

General Sales Office

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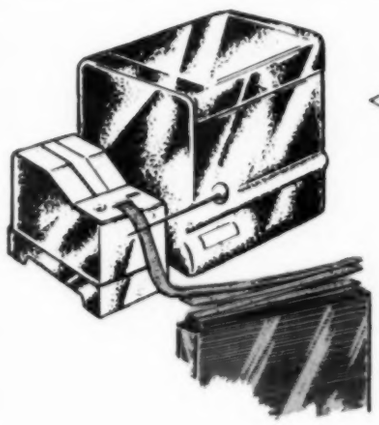
PERFECTION® TWINS

in your

Communication Paper-Work



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No rewinding to get at start of message. Just FLIP OVER.

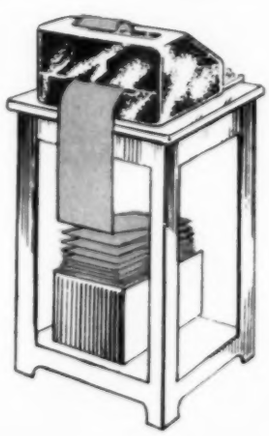
3,000′ to 9,000′ lengths give 21 to 63 hours of UNINTERRUPTED service.

19″ between folds. 11/16″ and 7/8″ standard widths.

Special widths on order.

Faster, easier filling. No need to crimp, and crease.

PERFECTION FOLDED "PERFORATOR" dispenses directly from carton.



PERFECTION

PRINTER PAPER FOLDED

Eliminates message interruptions due to roll changes.

Approximately 2850′ of ALL USEABLE PAPER per carton.

18″ between folds. Standard widths available.

Requires less storage space.

Canary, white, pink, green.

PERFECTION FOLDED "PRINTER" dispenses directly from carton.

PAPER MANUFACTURERS COMPANY

PHILADELPHIA 15, PENNSYLVANIA

Makers of PERFECTION ® World's Leading Brand of Communication Papers . . . Rolls and Folded

Equipment & Supplies

(Continued from Page 18)

ing. New pads can be slipped onto the handle when replacement is necessary. For identification purposes the developing pad handle is jet black and the etching pad handle is brilliant red.

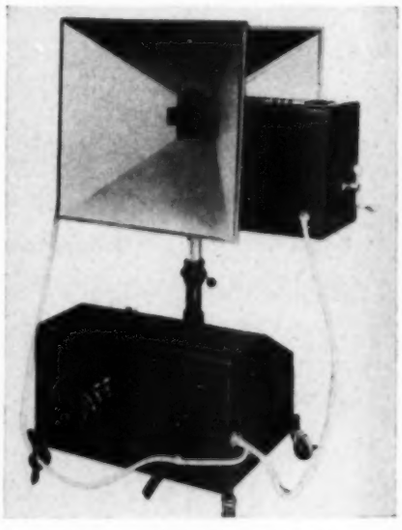
For quick identification of solutions, the labels on the bottles are color keyed—the coating solution printed in green, the developing solution in purple, and the etching solution in orange. Please mention PEE No. 228 when requesting further details.

Aluminum Barrel Truck

An all aluminum barrel truck, equipped with two-wheel safety brakes, is called the Ezy-Rol Barrel Cart, says the manufacturer, Valley Craft Products, Inc. The brakes are said to give the operator control of loads as heavy as 1000 pounds when moving down inclines, it is claimed. The non-sparking aluminum construction is a feature where volatile materials might be present. Tubular frame of the truck constructed from aluminum pipe and has a guaranteed load capacity of 1000 pounds. Other features include a spring actuated chime hook, specially designed loading shoes which allow comparatively short handles to be used, and wheels mounted in ball bearings. The truck is available with either solid rubber or pneumatic tires. For more information, please mention PEE No. 202 in your request.

Two-way Gravure Arc Lamp

The nuArc Company, Inc. recently announced its G-150 Motordriven Arc Lamp. This powerful, motor-driven lamp with a single point light source reflects in two directions. It was developed for the rotogravure industry to enable exposure of two frames at one time and with exactly the same intensity and color temperature of light. The powerful light develops 150 amps. at the carbons. It is said to burn steadily with little fluctuation and gives excellent coverage. nuArc will soon also announce 150 amp. lamps for camera and printing frames. For further details, please mention PEE No. 219 in your request.



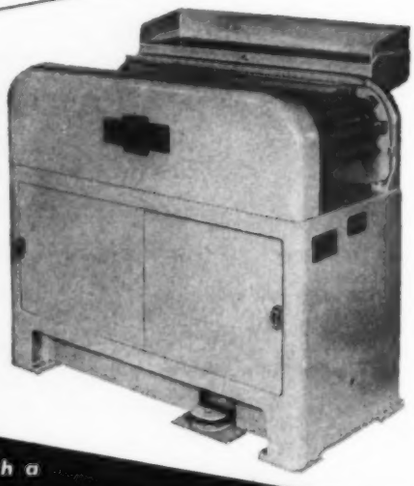
Duplicate Letterpress Plate

A new type of letterpress printing plate has been developed by Johnson Mat & Electrotype Co. Called the Electroplastic plate, it combines the standard copper electrotype shell with a specially-developed plastic backing material. The sponsors claim the plate has the same printing quality and ruggedness as a standard elec-

(Continued on Page 77)

If you need...

RUSH PROOFS



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WESEL EPP-4

★ Automatic Stopping

★ Mechanical Safety Guards

★ Quiet Operation

★ Requires Less Maintenance

There's no sacrifice of quality when you rush proofs on a WESEL EPP-4 proof press. Its smooth performance results from the same careful engineering that provides trouble-free operation with only a minimum of maintenance. The new EPP-4 features heavier construction, quieter operation and an improved platen inking system. Equipped with mechanical safety guards and automatic stopping.

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ROP COLOR works...

IN fashions, decorations, movies, magazines, in TV...*and now in newspapers* ...COLOR makes the difference in eye- and buy-appeal. People like color—want color—expect and demand it. That's why many forward-looking newspapers use Curtis *simplified* ROP Color to build prestige and boost circulation.

By converting full-color reproduction to the simplicity of *black and white methods*, the Curtis ROP color system eliminates the costly, time-wasting factors in ordinary ROP color processing. The entire operation is reduced from *hours* to *minutes!* It's the *most economical* ROP color system you can use. Can be used with negatives produced by either the Curtis direct color camera or from regular color transparencies.

FREE... comprehensive color booklet "ROP Color Simplified," is yours for the asking. Gives detailed facts on Curtis color equipment and the Curtis color process—tells how you can use Curtis color to minimize production costs and boost readership and profits. For your copy write *today* to Dr. Thomas S. Curtis, Curtis Laboratories, Inc., 2718 Griffith Park Boulevard, Los Angeles 27, California. There's absolutely *no obligation.*

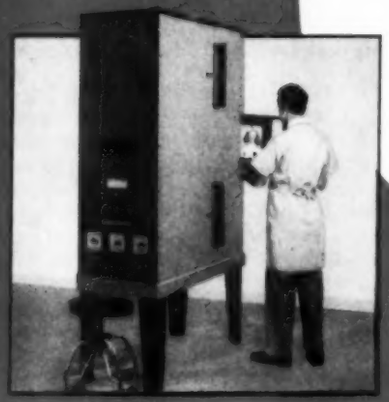
...to insure striking quality

to save time and money

to stimulate circulation!

He's examining the heart of ROP color!

Heart of the system is the Curtis Color Analyst!



The Curtis Color Analyst is an optical device using filters and mirrors to produce a single full-color image from three black and white separation prints or proofs. The purpose is to determine if they are correct for color printing. There's no mathematical calculation....just the manual adjustment of a few knobs to obtain a color image that shows clearly the need for and extent of any color correction required. It achieves quickly and easily high fidelity to color and tone.

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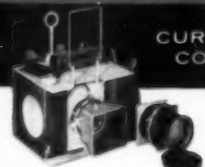
Vital elements in the system also are:

CURTIS ONE-SHOT COLOR CAMERA



Uses ordinary black and white panchromatic film—*simultaneously* makes three balanced color separation negatives with a single exposure.

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2718 Griffith Park Boulevard, Los Angeles 27, California

Please send free color booklet "ROP Color Simplified."

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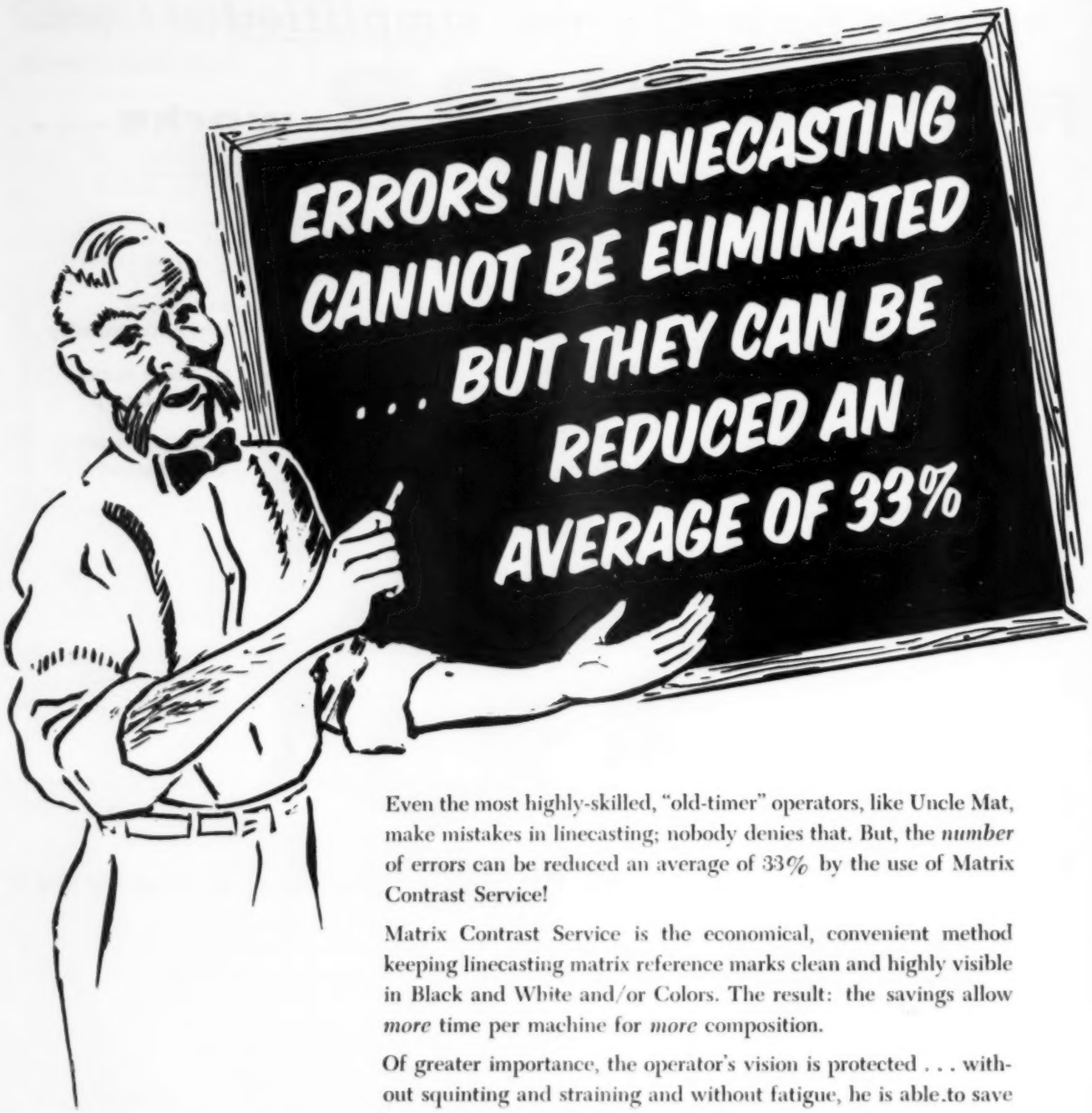

Even the most highly-skilled, "old-timer" operators, like Uncle Mat, make mistakes in linecasting; nobody denies that. But, the *number* of errors can be reduced an average of 33% by the use of Matrix Contrast Service!

Matrix Contrast Service is the economical, convenient method keeping linecasting matrix reference marks clean and highly visible in Black and White and/or Colors. The result: the savings allow *more* time per machine for *more* composition.

Of greater importance, the operator's vision is protected . . . without squinting and straining and without fatigue, he is able.to save his eyes and do a better job.

No wonder that Everybody is sold on Matrix Contrast Service!

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The New Equipment Problem

PART I—TODAY'S CHANGED OUTLOOK

By J. W. ROCKEFELLER, jr.*

*J. W. ROCKEFELLER, jr., and Associates,

Millburn, N. J.

In an eastern city a progressive and quality conscious printer decided it was time for a general overhaul of the plant. Business was good, profits were satisfactory and there had been no customer complaints regarding the grade of the work; conditions under which the best decisions are usually arrived at, and the most satisfactory plans formulated. No serious pressure of competition was on and quality was being maintained.

A thorough analysis of the type of work that the shop was producing was made. It was estimated that four small automatic presses with a maximum sheet size of 28 in., could do the work of three old large presses of more than twice the size and half the speed. The addition of six small presses, maximum sheet size 19 in., max. speed, 3600 ipm., would complete the picture and allow safe margin for a substantial sales increase.

There were a few pertinent matters that merited consideration. In operating the large cylinders, the ratio of makeready to running time had averaged about 50%. If the running speed of the new presses was to be double that of the old, then this ratio would jump to 100%. All the new expensive equipment would be standing still for as many chargeable hours as it would be running and the net improvement in production would not reflect the gain in speed of operation of the new presses themselves—a most disheartening prospect.

The matter of makeready was diligently studied, and it was found that a great deal could be done; that as much improvement could be accomplished in this direction, with a considerable smaller cash outlay, as through the installation of the new presses themselves. A precision proof press was obtained that would prove a full form the size of the new smaller presses and a half form of the new 28 in. presses. Several systems of mechanical overlays were investigated, and one finally adopted. A premakeready department was set up to prove all forms and make mechanical overlays, and no form was to go to the press until the foreman of this department said it was ready.

A study of the composing room revealed that type slugs were coming out of the machines tapered and varying in height, and that this was one of the causes contributing to punishing makeready time. The product of several trade composition houses was looked into, and one such company was found that kept its equipment in good operating condition, and was consequently willing to guarantee the accuracy of its composition. The printer decided to discontinue his composing room and to purchase his composition from this source.

The approach of this printer to the problem of a better product at a lower cost was, to be sure, the essence of logic, although, unfortunately, perhaps not typical of our industry. If, he reasoned, a hodge podge of bad type slugs and cuts mounted on warped wood blocks, were to be permitted to go on the bed of the press, then the precise machining for which he was paying in 10 brand new, expensive presses would be a total waste.

In the final analysis of printing produced it was found that the company printed several publications on the large cylinder presses, which if put on the smaller automatics would require greater time for hand gathering and subsequently saddle stitching the signatures. This obstacle was hurdled by the purchase of an automatic gathering and saddle stitching machine.

A general planning and follow up system was installed to minimize waiting time of the presses. This would now mean 3000 impressions lost for every hour of delay against the 1200 previously suffered.

It should be noted that the decision to install new,

EDITOR'S NOTE:

Printing Equipment Engineer *is pleased to announce a series of important articles upon the subject of* The New Equipment Problem. *These have been prepared by J. W. Rockefeller, jr., of J. W. Rockefeller, jr., and Associates. Part I is published this month. Part II carries the fascinating title*: When It's Time to Move Fast. *The title of Part III is*: These Milleniums Move Fast. *Rockefeller's reputation in the Graphic Arts as a printing engineer carries considerable weight. We hope our plant executive readers will profit immeasurably as the result of reading these helpful articles.*

smaller and higher speed presses affected not only the pressroom but every department in the plant. It should be observed that nothing had been changed basically, type was still being cast from molten metal, printing was being produced upon the same general type of flatbed letterpress, the same paper and inks were being used, but more efficiently.

The ultimate test of the new installation finally came with the production of an annual report, printed for one of the nation's industrial giants. This was a 64 page job running into 100 thousand copies. Not only was a saving of 25% effected in the production costs of this order, but the binding and mailing, work previously jobbed out, were completed in the company's own bindery and a full day was saved in the time taken between the receipt of the copy and the final mailing. Smaller, faster presses and pre-make-ready had been chiefly responsible, a miracle producing formula. Perhaps the most interesting part of this true story is that it all happened almost 30 years ago. The once magic formula is now over 25 years old and cannot be reasonably expected to bring about the same gratifying results.

It is altogether likely that more progress has been made in printing equipment and procedure in the past five years than in the preceding twenty. While this has greatly benefitted the ultimate consumer of printing, and in general, perhaps the overall printing picture, it has unquestionably rendered considerably more complex and difficult the problem of equipment selection.

Today, the printer must recognize the advantages of wet and dry offset printing, gravure, cold typesetting and numerous other factors, which 25 years ago, were either totally absent or so embryonic in point of development that they might be safely omitted from any short range planning. He must take an objective and dispassionate view of the possible use of printing equipment on the premises of his customer, and plan to avoid competing directly with any such installation and the general range of printing which it is capable of producing economically.

He must be aware of the interdependability of new developments in the industry, the manner in which photo-typesetting, for example, will affect the market for offset printing, and conversely, the impetus given to photo-typesetting, by the increased use of offset. Whereas 25 years ago, we were dealing with an industry condition which was virtually static, it is today, most certainly, dynamic, and the danger of confining our view to simply one step in the process, composition, presswork or bindery work, in the selection of a single piece of production equipment can constitute an invitation to disaster.

Because of the interdependability of equipment used in the various steps of the printing process, it is impractical to suggest that we start at the beginning. There really is no beginning. If we break into the circle at the chronological start of the process, it will be as good a point as any, so let us consider composition.

Printing from type, either cast at the foundry or upon a machine casting slugs or individual characters in the plant, has placed limitations upon the printer from the time that Gutenberg first made use of movable type. Compared with the flexibility of composition enjoyed by the monk copying scriptures in the medieval monastary, the newer method, permitting the mass production of books, was stiff and stilted, and in all likelihood, subject to the same criticism which has more recently been leveled at the use of justifying typewriters.

Photocomposition has done much to restore the flexibility of hand lettering. It has done more than that, however. Substituted for the older method of setting hot composition, pulling repro proofs, photographing the proofs and making plates, it has effected such an improvement in the quality of the final product, that it is not necessary to use a glass to detect the finer, sharper delineation of the individual character.

The phototypesetting machine is today far from an inventor's dream. At last estimate, there were about 300 Fotosetters in use and other makes are receiving field tests, and may be expected soon to be in commercial production. Even if the printer is not quite ready for phototypesetting, he cannot ignore it. The private printing plant does not.

One such plant recently made a survey of its equipment, and found its slug casting machines about ready for replacement. A study of typesetting machinery available resulted in the conclusion that, on the one hand, its management should not buy or operate any more hot metal typecasting machines and on the other, that the phototypesetting machines already on the market did not offer sufficient latitude in selection of make.

The outcome was the discontinuance of the typesetting department and the release of 40 compositors. Until the typesetting picture clears up to a degree, this company will stand pat in the matter of equipment, and purchase its composition from the trade shop.

(To Be Continued)

INTRODUCING PAUL B. HOLDER

On August 15, Paul B. Holder joined *Printing Equipment Engineer's* Advertising and Promotion Dept. He will cover this magazine's central district territory and will handle special assignments. Holder graduated from Penn State University, class of 1949. In his education he specialized in business administration. He has been connected with the Graphic Arts in sales capacities since graduation.

Mr. and Mrs. Holder have two daughters—Sheila 6 and Paula 5. Holder and his family will live in the Cleveland metropolitan area. He has been active in the U. S. Air Corps Reserve and is a member of the Erie (Pa.) Craftsmen's Club.

Group Vision Care Programs

A sharp increase in prepaid group vision care programs for industrial employees and their families is predicted by the American Optometric Assoc. A statistical report on coverage, cost and usage of group vision care programs was recently published by the Association.

The report summarizes the findings from more than fifty sources in addition to the Association's own surveys. Its purpose, according to Dr. F. A. Koetting, St. Louis, Mo., chairman of the associations committee on Social and Health Care Trends, is to provide answers to questions most frequently asked by public agencies, employers and others interested in prepaid vision care programs. For a copy of the report, write the American Optometric Assoc., 4030 Chouteau Ave., St. Louis 10, Mo.

Pre-printing Color Tried in Florida

An experiment in the development of improved newspaper color printing was declared successful by newspaper equipment manufacturing officials who witnessed a recent press run at the St. Petersburg (Fla.) *Times*. In a trial operation, rewound newsprint rolls pre-printed by offset in four colors were fed into press folders during a regular advance run on two sections of the *Times*' Sunday edition.

The test run was conducted primarily to validate the principle of integrating rewound rolls with a printing operation. It is reported *Times* officials do not contemplate using this technique until additional problems have been resolved and certain special equipment is secured.

The section, which appeared in 15,000 copies, was composed of four standard size pages. A special section was pre-printed on a web fed offset press at Rochester Institute of Technology in New York; then rewound and shipped to St. Petersburg.

Over-all production of this section was supervised by Donnell Shortell, *Times* production director, in cooperation with RIT officials. The trial run at the *Times* was directed by Press Foreman Ben Faden. Representatives of Goss Printing Press Co., Cline Electric Mfg. Co., Electric Eye Equipment Co. and American Type Founders participated in the experiment.

More Efficient Use of Time Cuts Composing Room Costs

Rising labor costs and high overhead are getting widespread blame today for reduced profits in newspaper and commercial printing plants throughout the country, says George F. Morrison, president, The Morrison Company. In studying the problem in most organizations, recommendations for savings are usually based on consideration of hourly rates, hourly savings, faster work, but not necessarily upon detailed investigation of what is causing the wasted time. Breaking down labor and overhead costs to small increments often spotlights the means and methods for doing something about them.

For instance, the average costs for composing room operations throughout the nation is about $6 per hr., per man. Reducing this to fractions, we come up with a cost of 10c a min. per man in direct labor. The value of each minute throughout the day is highlighted—and immediately spotlights a means by which each minute can be made more profitable.

Lest we be criticized for slave driving, we're not talking about those minutes in terms of what more a man can accomplish on a specific job. The spotlight shows up important minute-losers about which only management can do something.

As a case in point let's make a detailed study of saw-trimmers. In high production composing rooms the recognized standard is one saw-trimmer for every two compositors. Yet in too many shops there is only one saw-trimmer for every four or more compositors. Here's where minute-losers push costs completely out of line.

If a man waiting for a saw or walking too far to use one, or correcting mistakes from one that is not accurate, loses 10 min. in an hour, he will have theoretically lost 60 min. in the day. This lost time costs the company $6. Suppose you have 10 compositors and each loses 10 min. per hr., then you have a loss of $60 in a day. According to Morrison, 12 days at this rate of loss will more than pay for a modern saw-trimmer—and your minute-losers can be turned into production profits.

This is only one example of dollar savings possible in the composing room by installing adequate and accurate saw-trimmer equipment.

PNPA Dedicates New Building

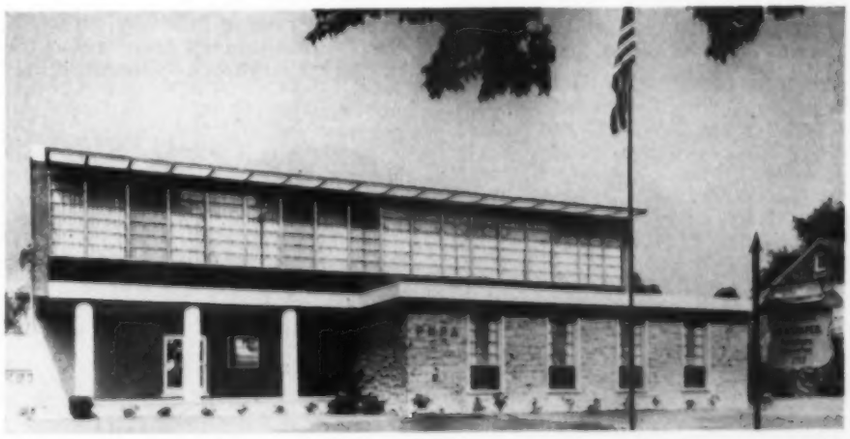
The first office building in this country built by and for a newspaper trade association has been erected at Harrisburg, Pa., by Pennsylvania Newspaper Publishers' Assoc. The brick, glass and stone structure, which was dedicated in ceremonies held recently, represents a $166 thousand investment on the part of PNPA.

SERRILL

The new headquarters, managed under Theodore A. Serrill, PNPA general manager, is located on a 110 ft. by 200 ft. plot overlooking the Susquehanna River. It is referred to by the 17 staff members as the PNPA Central Office. New street address for the association is 2717 N. Front St.; telephone, CEdar 4-4067.

The PNPA functions ". . . to encourage and protect the trade or business of publishing newspapers in Pennsylvania, and to gather and disseminate information among and for the benefit of its members . . ." The association works with 32 regional press and printing organizations. In the field of newspaper mechanical education PNPA and the New Jersey Press Assoc. are closely associated through joint sponsorship of the Mid-Atlantic Mechanical Conference each year. The 1957 Conference will be held at Sheraton Hotel, Philadelphia, March 21-23.

Features of the $150 thousand PNPA building include air conditioning, flush mounted fluorescent ceiling lights, modern offices, conference room, reading and clipping rooms (for Mid-Atlantic Press Clipping Service), pushbutton intercom system, and a 1170 ft. area for mimeographing, folding and mailing operations and for storage purposes. A bronze likeness of the late William N. Hardy, former PNPA manager, is situated in the tan brick vestibule. Plans call for future installation of a bronze memorial tablet on which will be listed the daily, weekly and Sunday newspapers which participated in financing the new building.



Front view of new $166 thousand headquarters of Pennsylvania Newspaper Publishers' Assoc. in Harrisburg, dedicated recently.

$1 Million in New Equipment For N. Y. Combination Plant

The installation of $1 million worth of new equipment has been accomplished without the loss of a production "beat" by the newly-merged firm of Publishers Printing-Rogers Kellogg Corp., now operating in a new, ultra-modern 105,000 sq. ft. plant located at 36th St. and 47th Ave., Long Island City, N. Y. The new Graphic Arts company is the result of the merger of Publishers Printing Co. and Rogers-Kellogg-Stillson, both New York firms whose founding dates back to 1876. PP-RK now calls itself the largest combination letterpress-offset operation in the Eastern area.

The new equipment, which consists mainly of Harris and Miehle multicolor presses, has greatly increased the plant's production facilities. Production facilities now include a job section with 14 single and two-color presses in sizes from 14 in. by 20 in. to 27 in. by 41 in.; a cylinder pressroom with perfector, single and two-color presses ranging from 42 in. by 56 in. to 46½ in. by 70 in.; a rotary letterpress division with two- and five-color presses in sizes 40 in. by 59 in. to 52 in. by 76 in.; and an offset pressroom with two- and four-color presses in sizes 30 in. by 39 in. to 52 in. by 76 in.

The merged company produces a large volume of general commercial, annual report and advertising printing in single and multicolor. Numbered among its customers are oil corporations, utilities, manufacturing concerns and large publishers, such as Time-Life, Inc., for whom it prints *Architectural Forum* and *House & Home*. Daily changes in telephone numbers in the New York area form still another large production operation for the plant. As many as 35,000 phone number changes have been received in one night on the plant's 14 Teletype receivers which are tied in with central phone exchanges.

A Trend in the East

The steady growth of Graphic Arts requirements in the East, particularly in the New York area, has encouraged not only the rapid expansion of many plants but also the interuse of both letterpress and lithographic techniques. According to industrial surveys, some 25% of all Graphic Arts operations are combining the two reproductive processes instead of competing with each other.

Due to these major influences, the decision to merge was made by Sampson R. Field, now president of the firm, and William H. Walling, chairman of the executive committee, who headed the R-K-S organization and is a past president of Printing Industry of America. A preliminary move was made in the direction of combined activities in 1949 when both companies operated from the same physical location at 207 W. 25th St.

Other executives of the new company are John G. Gantz, executive vice president; C. L. Mortimer, chairman, finance committee; Donald W. Mortimer, vice president; Ernest Schmatolla, vice president, and Edward Blank, plant manager.

View of new 105,000 sq. ft. plant in Long Island City, N. Y., now occupied by the newly-merged firm of Publishers Printing-Rogers Kellogg Corp.

Preparation for the Move

In September, 1955, the first executive plans board meeting was called to determine the operational procedure for the movement of the physical equipment, office and personnel to the Long Island City site. Every detail was outlined in fomulating a scientific removal. A three-dimensional scale model floor plan, ¼ in. to the foot, was assembled. This unique 3-D floor plan layout was constructed in five movable sections, each equalling 20,000 sq. ft. and designated for the six major sections of offices, rotary letterpress division, composition room, job and cylinder pressroom, offset pressroom, and bindery. Dimensional models of the required machinery and additional equipment were made by Vice President Schmatolla.

The scale models made possible the simulated movement and placement at will of thousands of tons of machines and material enabling the plant executives to better visualize the finished plant. Hundreds of varied combinations were tried until the best possible solutions were achieved. Department executives were called in for a series of special meetings to analyze their particular sections and to work out solutions to specific problems. These dealt primarily with workflow, materials handling, lighting, relationship of one department to another, location of storage rooms, elevator positions (there are two floor elevators) and provision for future expansion. Several layouts of each section were selected, and photographs were taken by Schmatolla of these 3-D arrangements. These pictures were projected on a large screen during extended staff meetings,

Late Model Presses Speed PP-RK's Production

1—Job section of the letterpress pressroom includes Miehle Vertical, ATF Kelly Three and Miller presses. Complete equipment includes 14 single and two-color presses in sizes from 14 in. by 20 in. to 27 in. by 41 in. Late models of all these presses are in keeping with the company's policy of providing "advance mechanical equipment."

2—View of PP-RK's cylinder pressroom with job press section in background. The big Miehle presses have been located in the new plant so that the operating side of each press has been given the widest area in each bay. Noticeable are the air hose reels on pillars running down the left side of the department.

3—One of the plant's four in-plant loading docks which are constructed to house an entire 50 ft. trailer truck indoors. The device at right, a Load Lugger, is used for accommodating the plant's trash (dirt, wood, cans, etc.). When it is full, it is loaded onto a special truck (which is being done here) and taken away to be emptied by the firm which provides this service. The unit is mounted on casters for convenient movement. The dock levelling device at left automatically lowers, raises and extends to suit the tailgate height of different trucks.

4—Part of the plant's well-equipped bindery showing four of the larger folding machines. Hand operations are performed in area at left. Rolling bindery trucks are used for fast movement of work to and from the elevator partly visible in far left background.

and placements were discussed to get the best points of view. Further revisions were made in an attempt to combine the choice features of each layout until the final decisions were made and agreed upon.

Finally, after a month of meetings, conferences, discussions, photographing, rearrangements of the models, a moving schedule was drawn up. This schedule set exact dates for the stopping, dismantling, trucking, re-erection, wiring and running for each press, as well as the installation, ordering and wiring and running dates of the new equipment. Machinery in the previous plants that did not meet with the company's requirements for quality, plus fast production were not included in the new plant. Other equipment was completely rebuilt.

To co-ordinate this moving schedule and to avoid interruption in production, one press worked in the New York plant until an identical press or one that could produce the same work began operations in Long Island City which is located across the East River in the Borough of Queens. New equipment was ordered early in the primary planning stage to make possible the releasing of additional presses from the metropolitan location. Draftsman's blueprint drawings, scaled to ½ in., showed the location of every piece of equipment for press erectors, electricians, plumbers, and for concrete workers in the instance where steel girders had to be encased in concrete under five 76 in. presses. Individual sets of drawings were made for each contractor, indicating the location and extent of his services, and each was furnished a schedule for the co-ordinating move of the particular equipment.

On April 30, 1956, five months after the first press was moved, the entire organization was situated in its new home and operating at full production. This mass of detail and the entire technical burden of the move was handled under the direction of Plant Manager Blank.

Other Production Aids

In addition to the press equipment already noted, PP-RK management has instituted many innovations. Foundry equipment was installed on the premises to make molds for electrotypes from unlocked forms. A central air compression system feeds a series of air hose reels which extend 50 ft. in any direction are located every 50 ft. throughout the plant enabling quick blow-off of dust and spray from all material. The air hoses are serviced by two 75 h.p. and one 15 h.p. air compressors each working individually or collectively to insure unbroken air compression to every press in the plant. Two Registerscopes were installed for preparing plates and type forms for press. General lighting throughout the plant is from continuous 96 in. slimline fluorescent tubes and was engineered to allow for future movement or expansion.

Four in-plant loading docks are capable of housing an entire 50 ft.

Composing Room Operations at PP-RK

1—Dexion steel shelving is used liberally in the Publishers Printing-Rogers Kellogg plant for a variety of purposes. Here, in the plate storage room, it has been assembled into eight-shelf racks for accommodating cuts. Workers at right handle the enormous job of receiving, filing and shipping the plates.

2—Linecasting machine section of the composing room. One of the plant's 50 ft. air hose reels for blowing dirt and dust off machines and material can be seen on pillar at right. Others are visible on pillars in background.

3—Lockup section of the composing room with press sheet lineup tables in background. Spacious aisles between imposing tables and lockup materials rack, and rolling trucks for movement of galleys to and from lockup are noticeable features of this section.

4—Foreman's office in the composing room is on an elevated platform surrounded by a wooden rail fence. The 14 Teletype units are used for receiving phone number changes from central exchange points in the New York City area. As many as 35,000 changes have been received in one night on these machines which are set into type and proofed for phone company use.

trailer truck indoors. A dock levelling device automatically lowers, raises and extends the dock leveler to the truck. The outer and inner doors, as well as the dock levelers, are all push button controlled. Two docks service the upper floor from the 48th Ave. side of the plant, while the other two service the lower floor from 47th Ave.

The general offices were constructed on a special level and centrally located for easy accessibility. The production office is glass enclosed overlooking the rotary letterpress section, the dock area, as well as service rooms.

The plant is actually a split-level in design with the major work area being conducted on the street floor. Many of the special service rooms have been placed in the immediate vicinity of the production offices. These include the ink room, foreman's office, plate storage, plate preparation, line-up, roller coating, etc.

In reference to the new plant, Field stated, "it includes one of the largest variety of presses in the country. We have spared no expense in acquiring advance mechanical equipment to aid in providing quality service and efficiency. We have equipped our machines with every possible workable modern accessory, regardless of cost."

ANPA Mechanical Committee

ANPA President William Dwight recently announced revised members of the American Newspaper Publishers Assoc. Mechanical Committee as follows: J. Harold Mintun, chairman, Pittsburgh (Pa.) *Press;* James S. Copley, San Diego (Calif.) *Union* and *Tribune;* Leven T. Deputy, Dallas (Tex.) *News;* Charles A. Frederickson, Westchester County Publishers, White Plains, N. Y.; Henry Garland, Pittsburgh (Pa.) *Post-Gazette;* W. E. Gibbons, Portland (Ore.) *Journal;* Glen R. Hutchinson, Los Angeles (Calif.) *Times and Mirror;* George F. Marshall, Portland (Me.) *Herald-Express;* Joseph E. McMullen, Milwaukee (Wis.) *Journal;* Harry Sloan, New York (N. Y.) *Mirror;* W. Watson Southam, Southam Newspaper, Toronto, Ont., Canada; James L. Stott, Richmond (Va.) *Times-Dispatch* and *News Leader;* Earl P. Weiskittel, Youngstown (O.) *Vindicator;* Allan M. Woods, Garden City (N. Y.) *Newsday.*

Graphic Arts Trends

Emphasized at Craftsmen's Convention

Los Angeles conclave hears 25 speakers on many production topics; elects Wise to presidency; names new governors

By **MacD. SINCLAIR**
and **EDWARD H. OWEN**

Technology, production methods, and reports on the effectiveness of recently developed Graphic Arts processes highlighted the educational program of the 37th Annual Convention of the Intl. Craftsmen's Assoc. held at Los Angeles' Biltmore Hotel, August 12-15. More than 850 Craftsmen and their ladies were on hand to see the elevation of George Wise to the International presidency and the election of three governors to the International board under the association's new by-laws.

Wise, who is partner-superintendent, Dugan-Millis, Inc., Cleveland, succeeds A. R. (Tommy) Tommasini, superintendent, University of California Press, Berkeley, Calif., to the highest post in the International which represents 15,000 members of the Graphic Arts throughout the world.

As provided by the association's constitutional changes, Ferd Voiland, jr., State Printer of Kansas, Topeka, was elected first vice president; Mark H. Carothers, manager, Printing Dept., First National Bank, Dallas, was named treasurer; and Albert H. Kolb, manager, Printing Dept., Marine Trust Co., Buffalo, was named International governor.

In a spirited, political-type contest, the following were elected to positions on the International board of governors: Thomas L. Cooper, president and general manager, Southern Photo Process Engraving Co., Atlanta; Floyd C. Larson, director, U. S. Navy Printing Office, Great Lakes, Ill.; and Gordon T. Matson, owner, Modern Typesetting Co., Los Angeles.

Buffalo in '57

As the result of action taken at last year's convention, the 1957 convention will be held at the Hotel Statler, Buffalo, N. Y., August 4-7. Earl S. Hershberger, manager, Hilton Press, Buffalo, will serve as convention chairman. The Buffalo delegation to Los Angeles conducted a pre-convention registration which resulted in more than 300 signifying their intention of attending next year's conclave.

The Los Angeles convention voted for Detroit as the 1958 convention city. A. Ted Annen, Shelby Photo-engravers Co., Detroit, will act as chairman. Although no formal action was taken, New York bid for the 1959 convention in an invitation extended by Edward Blank, Publishers Printing-Rogers Kellogg Corp., Long Island City, N. Y., who will serve as general convention chairman.

The full program, which was planned by a hard-working Los Angeles committee under the direction of Reaugh Fisher, convention chairman, included a variety of features topped by a trip to world-famous Disneyland. The educational sessions, said the committee, were designed to place special emphasis on the problems and needs of the smaller shop operator and production executive, but there was much offered for executives of plants of every size. A post-convention trip to Hawaii was also offered.

Andy Chuka of Phoenix, in full western attire, is deputized convention sergeant at arms by A. R. Tommasini.

One of the highlights of the educational program was a post clinic consultation session in which all speakers at the convention participated. It was designed to provide means for obtaining detailed production information.

Keynoter at the opening of the convention, Dr. Alec Nichols, Trinity Methodist Church, Los Angeles, focused attention on the "tremendous power and influence" of printing. Luncheon speakers during the convention included Dr. Frank Baxter, University of California, who predicted a renaissance in present reading habits of Americans; William Hendricks, Warner Bros. Studio, Hollywood, who talked on industry promotion opportunities; and Tony Whan, Pacific Indoor Adv. Co., Los Angeles, who reminded the Craftsmen that "the future of our business depends on our ability to motivate change." A feature of the Printing Week luncheon was the introduction of Natalie Wood, Hollywood star, as 1957 Miss International Printing Week.

The new International officers, left to right, front row: Treas. Carothers, Vice Pres. Voiland, Pres. Wise, Past Pres. Tommasini. Back row: Gov. Matson, Secretary Oldt, Govs. Larson, Cooper and Kolb.

Research and Technical Progress Changing Graphic Arts Techniques

In his introductory remarks as moderator at the Progress in the Graphic Arts Clinic, held at the Los Angeles Craftsmen's Convention on August 13, Assistant Dean Kenneth Burchard of the Carnegie Tech School of Printing Management, stated that ". . . during the last 500 years we have been doing things in the Graphic Arts industry in the way they have always been done, basically since the invention of printing from movable types by Gutenberg. However, we are going through a period of change."

Research Trends

The first speaker was J. Homer Winkler, technical advisor, Battelle Institute, Columbus, O., who spoke on *Research Trends*.

He indicated that future expansion and prosperity of the Graphic Arts industry will be dependent upon the results of research and the adoption of research developments in the form of printing equipment and supplies by the producers of printed matter of all kinds within the industry.

Progress in Graphic Arts Clinic speakers, left to right: Homer Winkler, Battelle Institute, Columbus; R. Smith, Eastman Kodak, Rochester; Ken Burchard, Carnegie Tech, Pittsburgh.

In the Graphic Arts industries, he said, radically new processes and developments have found ready customers and enthusiasts. As a result, the research expenditures of the printing and publishing industries has continued at an estimated annual level of about $6 million for the past five years. Winkler asserted that this is not a creditable total for an industry having a sales volume of $6 million. It approximates at about 0.1% of gross sales. One company, Time Incorporated, is responsible for over one-fourth of the total printing industry research investments. This company's research budget is reported to be in excess of $1½ million annually.

Winkler alerted his audience to the fact that new devices and processes for the office printing field are being introduced so rapidly that it is difficult to keep informed about them. He concluded that many of them should be considered for use by printing production executives.

The speaker discussed a number of developments now being worked on, or having been nearly completed, in foreign countries. One of these was the Elfers process, an ingenious Dutch development, in which it is claimed to effect an automatic tonal correction that eliminates hand work and re-etching. The Elfers process may be used for making zinc or copper halftones. Another development of a special interest is mentioned in the Progress Report from the German Institute of Graphic Arts Research in Munich, West Germany, on the development of an original letterpress halftone plate of Nylon.

In conclusion, Winkler stated that the future growth of the printing and publishing industries is dependent upon a continuing increase in the needs for printing. An increase in the volume of general business, he observed, will not necessarily mean that the same percentage of increasing volume will carry over into the printing industries.

Photomechanical Separation

Robert M. Smith, Graphic Arts technical representative, Eastman Kodak Co., discussed *Color Scanning and Photomechanical Separation*. Smith's paper was a well prepared one. However, since it was of so highly technical nature, we will only include in our summary some of the highlights of his address. The speaker said: "The problems of reproducing an original color picture are most complex and have been the subject of much study by scientists and technologists in the photographic and printing industry. Yet, they have in good measure been solved is evident from the high standard of color printing now common in magazines, advertising material and books. It is not yet so obvious from the color printed in the daily and weekly newspapers, although much advance has already been made in that field."

Continuing, Smith said: "We have troubles with photographic color films in that there are definite limitations in our ability to reproduce tones and color values properly; with printers' inks which are mostly degraded somewhat in color; with the peculiar properties of the paper on which the printing is done; with the way in which the printing plates apply the ink to the paper, and the way the paper accepts the ink; with the limitation of the paper reproduction as compared with the transparent color original when it comes to the range of films which can be accommodated; with the possible loss of sharpness; and with the usual practices of printing and dots of ink instead of continuous graduation of inks.

"In the ideal system of color reproduction, we could analyze the original representing the amounts of red, green and blue light which it transmits or reflects. We could reproduce these by means of perfect inks which, if pure, are called cyan, magenta and yellow. The practicable printer would call them blue, red and yellow, but as his nomenclature is misleading so also is the purity of his inks decision. Usually, the ink called blue is too blue, and the ink called red is too red.

"The great disadvantage in using the conventional printing inks is that they make the work of correction difficult, more work on the hand plates, more dot etching on the separations, or more complex masking is required to correct for the unwanted absorptions. A clear understanding of this might well lead to the use of better inks. It is true that at present it costs more which might well be offset, except for very long runs, by the saving in hand work and the reproduction in the photographic reproduction.

"Without correction of some kind, the whole tone scale, the hue, the saturation and the brightness cannot be reproduced by the available dyes or pigments used in inks. Since no masking is used in the reproduction method, these are the kinds of results which the dot etcher or color etcher must compensate for by hand work."

Advocates a Black Plate

Smith said that in most printing methods, especially lithography and letterpress printing, a black printing plate is necessary to give the maximum contrast, since a combination of the other three inks is not usually capable of producing a high enough density in the shadow areas. The black plate also furnishes general detail and modeling for the whole illustration. In gravure printing, this extra plate is often unnecessary because the higher concentration of the three colored inks can be applied to the darker areas. This reduces the desirable high shadow densities.

"Since a black plate is theoretically unnecessary," he said, "it should not be used indiscriminately. The indis-

Salesmen's Guild Elects

The Intl. Printers Supply Salesmen's Guild, which ties together 16 local organizations of industry suppliers in as many metropolitan areas, met concurrently in Los Angeles with the Annual Convention of the Intl. Craftsmen's Assoc.

Officers elected were: president, Myron F. Lewis, *Graphic Arts Monthly*, Chicago; first vice president, Damon H. Moore, Miehle Printing Press & Mfg. Co., Dallas; second vice president, Lou Croplis, American Type Founders, Inc., New York, N. Y.; secretary, F. J. Tominey, *New England Printer & Lithographer*, Boston, and re-elected treasurer, Allen B. Sulzer, California Ink Co., Los Angeles.

criminate use of a black plate is certain to darken an illustration beyond the correct values. Unless a black plate possesses a little skeleton of an image, printing only in the extreme shadows, some of the other three colors should be removed wherever black is to be printed. This is particularly important in wet printing and can be achieved by masking method or by handwork, but photographic masking can do the job more effectively than even the most skillful hand work."

Unintentional variations in reproductions are due to imperfect control of the photographic and photomechanical steps. These variations can be greatly reduced by carefully controlled exposing and processing conditions. For accurate control, the use of the densitometer is essential.

Smith related that in photomechanical reproduction from a color transparency, one of the most difficult problems is the making of a good black printing plate. Usually, the negatives from which this plate is made are the least corrected of any of the separation negatives. The black printer negatives made by most methods lack in density in the areas representing pure colors of the original. The pure colors should be represented by densities equal to white in the black printer negatives. If they do photograph as white, they will be sufficiently dropped out in the reproduction so that the pure colors will not become darkened and degraded in the reproduction by the addition of black.

Convention Highlights

(All names read left to right)

1—Film star, Natalie Wood, gives autograph to Robt. Hoffman, Hoover Co., Canton, O., while President A. R. Tommasini looks on.

2—Future convention chairmen are: Earl Hershberger, Hilton Press, Buffalo, '57; A. Ted Annen, Shelby Photoengravers Co., Detroit, '58; Ed Blank, Publishers Printing-Rogers Kellogg Corp., New York, '59.

3—Crucial moment in International elections. Counting ballots are Lou Madden, Spencer Walker Press, Columbus, O.; Elmer Leach, Leach Ptg. Co., Des Moines; Bill Brock, Cole-Holmquist, L. A. In background are presiding officer Basil Parsons and Secy. Pearl Oldt.

4—Luncheon speaker Dr. Frank Baxter, Univ. of Calif., with Lee Augustine, Printing Mchy. Co., Cincinnati. Convention Chairman Reaugh Fisher and Mrs. Fisher, chairman of ladies' committee.

In electronic scanning techniques, Smith said, the highly corrected type of black printer negative is produced by these methods it is possible for the operator to obtain negatives automatically which have predetermined amounts of color removed from the areas which contain gray components. This so-called "under color removal" provides a good black printer negative for wet printing as well as dry printing.

Trends In Display Typography And Proper Copy Preparation

Howard N. King, vice president, The Maple Press, York, Pa., presided over the Typography and Copy Preparation Clinic. There were three speakers on the platform, as follows: Paul Bennett, typographical advisor, Mergenthaler Linotype Co.; Ernest Schroder, McLean Brothers, Ltd., Montreal, Can., and Richard J. Hoffman, director, City College Press, Los Angeles.

The first speaker to be introduced was Paul Bennett who spoke on the subject *Advances In Typographic Practices*. Bennett stated that advances in type practices are methods of typographic setting. Type on paper works for or against you. Advances consist of speed, volume and methods. Just at the moment, he said, "phototypesetting isn't the answer to everything." Bennett stated that some of the newer faces, such as Electra, Caledonia, and Fairfield, are supplanting time honored faces, such as Baskerville, Jansen and Granjon.

With respect to present day typography, the rage now is in the use of Futura, Spartan and the 20 or more varieties of this type of face. The speaker said that square serif faces are now fading in popularity. The rage for old type faces is now giving way to recently proportioned Roman types of faces.

Bennett stated that trends in commercial printing stem out of book printing. Thus, he said, Jansen is supplanting Caslon. Granjon is supplanting Garamond. Of the newer type faces, Times Roman is one of the most popular.

Preparation of Typographic Copy

The next speaker, Ernest K. Schroder, McLean Brothers, Ltd., Montreal, Can., discussed *Preparation of Typographic Copy for Lithographic and Photographic Reproduction*. He said that clearly typewritten copy which is to be photoset is desirable.

"It is agreed that the elements of pulling good reproduction proofs by conventional methods requires good type, suitable paper and ink, precision proofing equipment and trained personnel. The properly pulled reproduction proofs must be absolutely opaque and must not show ink squeeze or uneven edges; each character must be faithfully reproduced; text page or text pages must be uniform, and must not show variation of light and dark lines."

In his discussion, Schroder said: "Film which has not received the pressure of metal against paper, is undoubtedly the sharpest image known to the printing industry. We have found through experience, when any job requires use of reproduction proofs, that phototypography reproduces a superior product to that possible by the best of conventional methods.

A Need for Markup Men

"The ever increasing demand for photography requires the constant service of an expert or experts in markup. It is the job of the markup man to mark every line of copy to conform exactly with the layout supplied. Leading must be included to produce the exact area indicated. In conventional typography, leading can be inserted after the setting is completed by the simple means of dropping in a lead or slug. In phototypesetting the leading must be included as the finished makeup should include everything in exact position. Otherwise, much time and effort is consumed by cutting through film and respacing by the waxing method.

"Our phototypesetting markup is done by means of a slide rule and certain calculations which have been worked out to measure each particular face. Two distinct methods are

Participants in the Typographic Clinic, left to right: Dick Hoffman, City College Press, Los Angeles; Paul Bennett, Mergenthaler Lino., Brooklyn; E. Schroder, McLean Bros., Montreal; Howard King, Maple Press, York, Pa.

used: (1) To find area when point size is known, and (2) To find point size when area is known. These calculations have been worked out to such a fine degree of accuracy that a 32-page book can be marked up in a reasonable length of time to produce the finished job.

Schroder discussed camera type magnification. He said it is a photographic process by which the image obtained is not conformed to the original copy in the proportion of widths and heights. Some of the modifications which can be executed are: (1) Retain the width of the line and increase the height, (2) Reduce the height and increase the width, (3) To italicize or to backslant a line and the perspective itself. These modifications are an asset for display typography if used with good taste.

"Photocomposition," said the speaker, "is not a substitute process for metal composition and will not replace metal composition but it is a supplemental process, something which will satisfy a definite need."

Glamorize the Industry

Richard J. Hoffman discussed the subject, *Building Better Craftsmen*. He asked his audience where we are going to get the people to replace present workers in the industry. He supplemented this statement by saying that the average age of printers is 57 years.

He advocated intensification of training courses for boys who will become apprentices in the industry after they have finished their schooling. He asked: "How many of today's boys are willing to spend the time necessary to complete the traditional apprentice period which in some instances is six years?"

During the discussion period it was brought out by the speaker that extended types are attention getting and consist of styles not found in the ordinary office. The Cheltenham type series is still used especially in the smaller cities. It was felt that the Cheltenham series is going out.

New System for Scheduling Work

The spirit of a close friendly understanding between production and sales departments in a printing plant can only be developed by confidence in a workable production system, declared Ron Renny in a talk delivered at the Design and Planning Clinic of the Intl. Craftsmen's Convention held last month in Los Angeles. Renny, who is president, Craftsmen Press of Seattle (Wash.), shared the speaking assignment on the program with Merle Armitage, designer, editorial and art director, *Western Family Magazine*, Los Angeles, who discussed *Design for Today*. Presiding officer at the clinic was Thomas P. Mahoney, vice president, Regensteiner Corp., Chicago, and Intl. past president.

Renny, who chose *Production Planning Is A Must Today* as the title for his paper, reminded, the Craftsmen that "planning specifies how the job is to be done. We feel these decisions should be made in the office free from the pressure of the daily work load. We have found in the past that where decisions are made in the plant quite often not all factors are considered. What is a time saver for one department can result in more hours expended elsewhere."

He described a scheduling system, developed in conjunction with Remington Rand Co., which be asserted was "a great improvement over the old pegboard control which had been in use in our plant some 10 years. The old system had one major drawback — lack of simplicity —it was difficult to give a prompt answer to customers seeking information. The new system for job scheduling allows immediate access for information as a person can receive calls regarding progress of the job and give a prompt, definite answer."

Renny described the system as follows: First, all jobs clear on write up through a production planning engineer. A press layout is made showing grippers, bleeds, trim lines and folding layout. Positions of solid areas, screen tints are studied for best performance for all departments. The job ticket then goes into production control for routing and filling out a schedule as to time for each operation and to determine a delivery date. Should the date requested by the sales department prove unrealistic, a reschedule notification form is made out. This form is also used where a delay in proof return occurs.

The key to the scheduling starts with a Kardex Pocket Frame desk stand which has capacity for the schedules of 600 orders on Kardex cards. There are six different colored cards which denote different classes of work. On receipt of the order, production control schedules the operations.

There are two parts to the Kardex card. The original goes in the office control file and the duplicate, which we call a traveling card, is kept in the department file panel and follows the job through the plant to completion.

The card provides a listing for what is called Priority I, a "sure date," which must be covered at all costs. Priority II, "vital," but extension may be possible for a half day or overnight if properly cleared. Priority III, "approximate delivery dates," where two to three days variance is acceptable.

The card also contains a schedule area by departments which shows the delivery date due out of the department. Renny commented: "It has been our experience in the past for all preparatory departments to look at the final delivery date and too often finish the night before and assume that ample time was left for the other departments. Result was a terrific jam and unnecessary overtime. Each department now has a delivery date that they are responsible to meet."

The production clerk starts the order out by routing the job ticket and the card to the first department where the card is placed in the panel file. This clerk covers each department three times daily to insert new schedule cards. He also picks up completion cards for posting which are kept in the job tickets and carry the same number as the job tickets to show that the job has cleared the department. These are simply torn off and time dated for pickup for posting.

The traveling card then moves on to a new department. The production clerk returns to the office, posts the stubs to the control card and moves the position indicator to the next department.

Upon delivery, the traveling card is taken from the shipping panel and returned to production control with the cleared job ticket. The office control copy is removed from the control file and kept for future reference.

Responsibility of Supervisors

Renny also said: "It is the responsibility of each supervisor (at Craftsmen Press) to see that the department remains on schedule, not production controls. If he sees a difficulty in meeting deadlines, the supervisor is to notify production control and thus avoid a lot of unnecessary expediting.

"He must also contact the estimating department whenever the time allotted is not adequate, as there may be a deviation in specifications. We have found it a good policy for the production control manager to take time each morning to meet with department heads individually and, by

(*Continued on Page* 43)

Individual Unit
Air Conditioners
In Commercial Shop

By FRANCIS A. WESTBROOK

Baker, Jones, Hausauer, Inc., which creates and produces printed advertising, approximately 50% four color process work, recently installed three General Electric Co. unit air conditioners in its plant in Buffalo, N. Y. The management feels that the relatively low investment required was fully paid for during the first season of operation by the savings realized.

The three packaged air conditioners are installed in different rooms of the offset department. One of 5 T. rating is in the stripping room, one 3 T. unit in the camera room and one of 7½ T. in the pressroom. They have almost completely eliminated troubles due to high humidity in the summer, and although it is not possible to obtain perfect conditions of temperature and humidity these installations go a long way toward overcoming difficulties due to weather conditions. The units are run during periods when they are required and the effort is made to maintain the relative humidity at 50% to 55% under the worst summer conditions. Troubles of static and ink drying formerly experienced have also been materially reduced by air conditioning, together with other improvements.

There is no system at present for humidifying in the winter but consideration is being given to making provision for it.

In the stripping department the accuracy of stripping in multi-color jobs and the improvement in cleanliness have fully justified the installation.

In the camera room air conditioning enables the platemaker to achieve a high standardization for his exposures so that makeover of plates of poor printing quality is now practically unknown.

In the pressroom running troubles have been largely eliminated. ink dries satisfactorily even when outside weather conditions are unfavorable and mis-register because of dimensional changes in the paper due to variation in humidity have been greatly reduced.

Of course, the use of unit packaged air conditioners has a number of features which may be of distinct advantage under certain conditions, as compared with central station air conditioning. With the unit system each work area may have its individual unit which can be adjusted to give the right atmospheric conditions for the particular work being done. The controls may also be changed for different kinds of work if necessary. Units of various ratings are available to condition the air in rooms of different sizes or two or more units may be installed in one room.

Another feature of the units is that those work spaces which are in most urgent need can be equipped with the packaged units first, and other rooms can be taken care of later. The expensive ductwork called for with central station systems can be saved, as well as costly building alterations incident to their installation, especially if the building is an old one not designed with modern air conditioning in view.

Packaged units are easily installed without interfering with production schedules, and there is great flexibility in their operation as only those units need be in use in rooms where the atmosphere requires temperature or relative humidity control depending on outside conditions. For instance, in summer only the sunny rooms may need cooling or in cool weather only the north rooms may need heating. In other words localized control of inside conditions is easily possible without involving a large central station system.

Finally, with air conditioning by means of the packaged units any breakdown in the service is strictly localized, which may not be the case with a central station system. Also, if the plant is expanded or moved, or its layout revamped, it is easy to move the units.

From the foregoing considerations it is evident that a packaged air conditioning installation may often be less expensive than a central station system. However, this is not always true and the only way to tell is by a careful survey, which may be had for the asking from the reliable equipment manufacturers or their local contractors.

Air conditioning units are available in both the vertical and horizontal models. The vertical models are used in the Baker, Jones, Hausauer plant. Horizontal models may be ceiling mounted and are especially useful for saving floor space in congested areas. They come in capacities of from 3 T. to 7½ T. and may be air cooled or water cooled. Vertical models range in capacity from 3 T. to 15 T. and are water cooled. A heating coil can be added to either model when desired but this has not been done in the plant under consideration.

View in stripping department, Baker, Jones, Hausauer, Inc., Buffalo, N. Y. commercial printing plant. The G-E packaged air conditioning unit is shown at the rear.

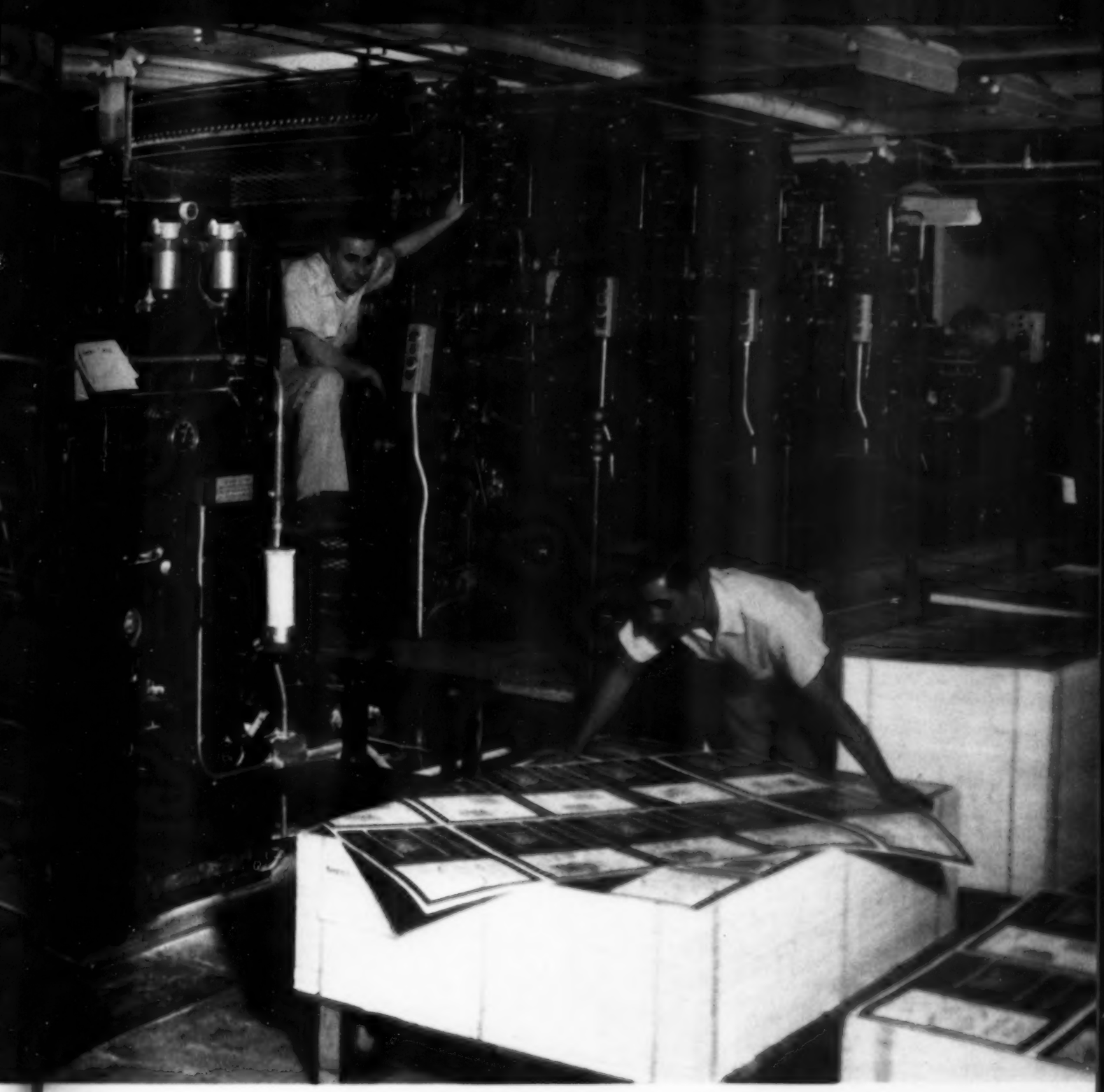
Harris Model 477, 52½ x 77" four-color offset press at Jersey City Printing Company, Jersey City, N. J. • Photo by William Richards.

Here's why our sales of multicolor presses have set a new record

Those skids of printed sheets you see piling up in this busy pressroom are full-color covers for telephone directories.

The familiar phone book is one more example of the sweeping trend to natural color—a trend that is one of the big reasons why we sold more multicolor presses last year than in any previous year.

Color lithographers give us many reasons for their preference for Harris presses. But three things that just about all of them mention are Harris feed



rolls, Harris inkers, and Harris transfer cylinders. This exclusive, three-way combination gives Harris multicolors the most accurate system of register ever developed for sheet-fed presses, the smoothest film of ink in the business, and a single, positive transfer between color units.

Because these three things add up to more printing profits, we build them into all Harris multicolor models — from the 23 x 36″ two-color to the 52½ x 77″ five-color.

For more information on Harris multicolor presses, just call in your nearest Harris-Seybold representative—or write Harris-Seybold Company, 4510 East 71st Street, Cleveland 5, Ohio.

HARRIS SEYBOLD COMPANY

HARRIS PRESSES

Harris Presses • Seybold Cutters • Harris Litho-Chemicals
Special Products • Cottrell Presses • Platemaking Equipment
Macey Collators

Flexographic Printing

By MR. FLEXOGRAPHY

II.—Testing Wet Inks

All inks should be evaluated for at least shade and color strength before being poured into the press fountain. A simple, properly executed drawdown showing a comparison with the previous standard will be helpful to your pressman if supplied him with the production order. If drawdowns are not used, you risk the possibility of the pressman informing you that production time must be spent on ink correction.

A drawdown practiced in the following manner will show both color shade and strength:

(1.) Stir both standard and new ink
(2.) Place a spot of each side by side on a drawdown pad
(3.) With drawdown knife, pull both ink spots down to bottom of pad with firm and steady pressure.

(Drawdown knife and pad may be secured through this column or your ink supplier.)

Since your standard ink may increase in viscosity due to solvent loss in aging, consideration must be given to the fact that a heavy ink will tend to pull down a heavier ink film, giving the impression of greater strength and color depth. Consequently, both inks must be close to the same viscosity.

There are instances when a "bleach" may be desirable. This is usually made by adding a small percentage of each ink to separate measured quantities of a white base—and another drawdown made as described above. If the tint with the new ink is darker than the tint made with your standard ink, it indicates that the new ink is stronger. By carefully determining the amount of standard ink that must be added to the standard tint to match exactly the new ink tint, you may determine the relative strength of the inks, each to each.

In addition to color comparison, another important factor is the *drying rate,* which may be judged as follows.

(1.) Place a spot of the standard ink and new ink side by side.
(2.) Lightly dip a finger into each spot.
(3.) Tap the inked fingers on a clean, non-absorbent surface, such as glass, porcelain or polished stone until one finger becomes tack-free.

This method, although not too scientific, can well indicate whether or not there is a great difference in the drying rates of the inks tested.

Viscosity should also be measured. It must be first taken into account that viscosity will vary with the temperature—an increase in temperature will cause a decrease in viscosity. Therefore, you must satisfy yourself that both inks have been exposed to approximately the same temperature for the preceding 24 hrs.

The simplest measurement is made with a Zahn or Ford cup which is nothing more than an instrument recording the time it takes for a full cup of ink to empty through a hole in the bottom—the more seconds required to empty the cup, the heavier the ink.

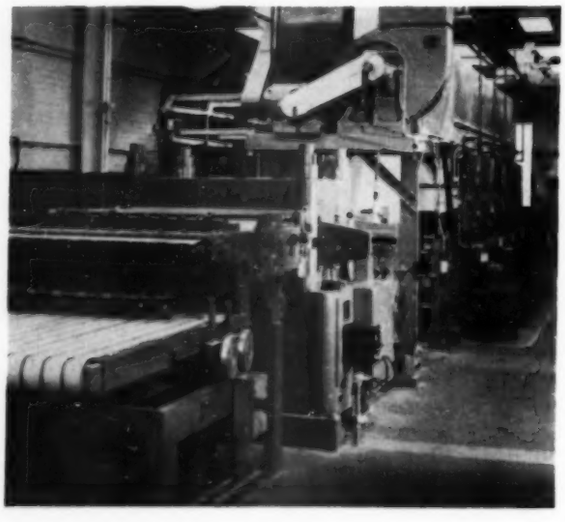
Compatibility of one ink with another should always be tested with pint samples before mixing the two inks together on the press. One ink manufacturer may obtain a perfectly suitable formulation and another may also get excellent results with his formulation. However, it does not necessarily follow that they used similar ingredients—sometimes mixing the two together will produce a horrible mess! First, then, mix together small quantities using a ratio of 1:1, 1:3, and 3:1, and check periodically over 24 hrs. for separation or curdling.

From these recommended procedures, it may be concluded that this column takes very little stock in the weight per gallon of ink as being an important factor in determining color strength. We also do not believe that a mixing paddle standing up by itself in the middle of an ink drum will be an indication of strong color ink. Why? Because results of tests herein prescribed quite often do tell a different story.

EDITOR'S NOTE:

This is the second in a series of articles by a printing consultant to flexographic printers. Your own printing problems will be answered by writing to Mr. Flexography, in care of Editor, *Printing Equipment Engineer,* 1276 West Third St., Cleveland 13.

Printers In Robes are members of the Christian Brothers of Montreal, Canada, who run one of the city's oldest printing plants, founded in 1877. They recently installed a 36 in. by 48 in. single color Harris, which will produce textbooks in French and English. Checking a proof left to right are (back row): Brother Sylvain, director; Al Guthrie, vice president and resident manager of Harris-Seybold (Canada) Ltd., and D. Brunet. Front: Brother Paul, procurator; Brother Pius, provincial; Brother Anaclet, director of printing, and John T. Redshaw, Harris-Seybold (Canada) Ltd. representative.



D. C. Drive on Gravure Press—A drive system powered by individual d. c. motors instead of a lineshaft has been adopted by Ohio Boxboard Co., Rittman, O., for use on a five color rotogravure printing press. The press is connected to a reciprocating cutter and creaser. The Ohio Boxboard Co. uses the unit in manufacturing boxes for soap powders and detergents. Pull and feed roll units are powered by individual shunt-wound d. c. motors, with Speed Variators (packaged motor-generator sets with controls) as another element in the drive system engineered by General Electric. The new system is said to have resulted in fewer web breaks and closer register of color.

Scheduling Work

(Continued from page 38)

reference to the card panel in that deartment, make decisions for overtime authorization and matters affecting scheduling.

Design and Planning Clinic speakers, left to right: Ron Renny, Craftsmen Press, Seattle; Tom Mahoney, Regensteiner Corp., Chicago; Merle Armitage, *Western Family Magazine*, Los Angeles.

"Advance notice of urgent work to arrive sometime during the work day is handled by routing a bright colored card ahead of the control cards to the department affected."

In closing, Renny told of assigning a planner to each order so that any calls from the outside are directed to him. He said: "This leaves the salesman free to pursue customer development. Also, any internal questions can be cleared directly with the planner, which has resulted in smoother operation for all concerned."

A Packaging Trend

Armitage, who formerly served as art director of *Look Magazine* and other Cowles publications, emphasized that "we are living in a day of packaging. Whether we realize it or not, the good design of almost everything that can be purchased today has made the mass public susceptible to good design. They may know nothing technically about the problem, but you cannot sell a 1930 body on a 1955 chassis even if the chassis is a Cadillac."

He continued: "Printed matter, whether it is a magazine, a broadside, a brochure, or a book, cannot escape the enlightened and current trend of being a package. There seems to be considerable misunderstanding in regard to the modern application of graphic arts. We have on the one hand the advertising agencies . . . which have given us the greatest mass sales in the history of the world. They understood eye appeal . . .

"On the other hand, there is a minority group who are interested in so-called fine printing, which too often has come to mean excellent craftsmanship in printing on fine papers but in a style reminiscent of other periods, which often results in dullness to modern eyes. It is my belief that these two outlooks and attitudes can be reconciled."

Handling Paper in the Plant —Inks of Today and Tomorrow

Ink and paper were the topics at the Craft Components Clinic held as part of the educational program of the Los Angeles Crafsmen's Convention. The speakers included Dr. Robert F. Reed, Lithographic Technical Foundation, Chicago, and Dr. Maurice Adler, California Ink Co., Berkeley, Calif. The session was conducted under the chairmanship of Gordon T. Matson, owner, Modern Typesetting Co., Los Angeles, and newly-elected Intl. governor.

Dr. Reed, who discussed *Handling Paper in Your Plant*, spoke from the lithographer's standpoint with respect to paper quality and handling of paper. He remarked that the requirements of letterpress papers are less severe than those for offset lithography.

Dr. Reed's talk was related to paper printability. He said that from the standpoint of production, printability includes: (1) Its ability to be fed through the press and delivered in a flat condition; (2) Its ability to hold register; (3) Adequate pick resistance; (4) Freedom from lint and dust; (5) Ability to accept an ink impression; (6) Freedom from chemicals that damage the plate, causing ink to emulsify, or attack drying of the ink.

Dr. Reed advised that for good offset press operation, sheet paper should be grain long, perfectly flat, neither too dry or too moist, and be trimmed straight and square. It should have a higher pick strength than paper for letterpress and a low curling tendency. It should be free from dust and lint and have good ink drying properties. Uncoated papers on skids should be felt side up, preferably. Roll papers for web offset have the same requirements as sheet papers. In addition, the rolls should be tightly wound and round, and should show no soft spots, flats or corrugations.

Paper Conditioning

Whether or not a given paper that is out of moisture balance needs to be conditioned depends on the size of the sheet, the register requirements, and whether the printing on either side requires one or more trips through the press: Since most shops are still not air conditioned, the paper should be protected from atmospheric changes while standing between printings by means of moisture proof covers.

Dr. Reed said that it is an important matter to check the printing image with the plate for length on the back edge of the sheet. Some pressmen use trammel points, some use steel tape, and some use the LTF register rule.

He recommended that paper for color should be a little on the moist side, from 5% to 8% r.h.

During the discussion period, the subject of static electricity came up. Dr. Reed said that in the offset process static is not as bothersome as in the letterpress process for the simple reason that a small amount of moisture is added to the sheet when being put through the press. He recommended 20% to 30% r.h. for offset atmosphere and about 50% for letterpress pressroom atmosphere. He recommends proper humidity in the plant, especially in the winter time when static is more likely to cause printing difficulties in the pressroom because of the lack of moisture in the air. One of his comments was to the effect that it is important to take care of humidity in the plant because you also take care of other problems simultaneously.

When asked about the most suitable stock on which to take reproduction proofs, he recommended a dull coated sheet with smooth surface.

The Inks of Today

Dr. Adler's subject, *Inks of Today and Tommorrow*, dealt with the development of new printing inks. In discussing flexographic printing inks, the speaker said the flexographic printing process is an offshoot of the rotogravure process. However, in the early stages of adapting the ink, and since the film of ink applied by the gravure method was so much thinner than that applied by the gravure cylinder, the printed result looked very weak and washed out. Satisfactory performance was secured by increasing color strength of the gravure ink. He stated that it was of no consequence whether the solvents used were aromatic, aliphatic or alcohol or even water as long as they were volatile enough to give rapid drying.

Heat set inks may be considered a cross between flexographic inks and conventional oil inks in that they contain a volatile solvent, yet the consistency is heavy enough to be used on a conventional printing press. In developing the heat set inks, the engineer stepped into the picture and designed heating equipment which when attached to the printing press accomplished heat drying.

In the mid-thirties there was another development of a novel idea in printing inks known as moisture set inks. The type of ink was one which also had to be developed in conjunction with a piece of equipment. Moisture set ink is one which dries by precipitation. The binder element of the ink is precipitated out of solution by the addition of a foreign element in which the binder is not soluble. In this case, it is water, preferably in the form of steam. Steam driers were developed to apply a fog of steam to the printed sheet or web immediately after printing. With this device attached to the press, a printed web can be dried within seconds of printing. Tremendous quantities of moisture set inks are used chiefly in the packaging field.

The speaker continued: "Another

type of ink which was developed in recent years is known as filtration ink and is sold under various trade names. With this classification of ink, the binder resin is filtered from the liquid portions of the vehicle and remains on the surface of the paper stock with the color element. The drying is almost instantaneous on paper stocks having the best filtration qualities. That is the reason that filtration inks find their widest use on coated papers. Although at first they were mostly used in the job shop on short runs, filtration inks are now being used by many larger plants on long runs. The printed loads can be handled as soon as removed from the delivery, which lends itself well for quicker service and relief of floor space."

Craftsmen Delegations in Los Angeles

(All names read from left to right)

Top—From Toronto, front row: Geo. Harper, Maclean-Hunter; H. A. Ellam, Rolph-Clark-Stone, Ltd.; R. Bidgood, Bathurst Power & Paper Co., Hamilton; Ed Aitken, Ault & Wiborg Co. of Canada, Ltd. Back row: Frank Parker, Parker Pad & Ptg. Ltd.; Nels Clay, Sinclair & Valentine Co.; Stan Hewines, McBee Co.

Center—From New York: Henry Schneider, Chas. Francis Press; Pete Bernard, H. Wolff Book Mfg. Co.; Ed Blank, Publishers Printing-Rogers Kellogg Corp.; Lou Croplis, ATF; Kendal Slade, Densen Banner Co.; Chas. Felten, *Messenger of the Sacred Heart*.

Bottom—From St. Louis, front row: Chuck Kelly, Jos. F. Kelly Ink Co.; Arthur Bonifer, sr., Concordia Pub. Co.; Harold Artell, A. R. Fleming Ptg. Co.; Milt Voertman, Concordia Pub. Co. Back row: Harvey Berg, Rub-R-Engraving; Robert Dunn, Sam'l Bingham's Son Mfg. Co.; Herb Rosemann, Progressive Electro; Joe Brennarr, Kutterer-Jansen.

The Inks of Tomorrow

The speaker asked the question: "What about the inks of tomorrow?" He then answered the question by saying that there is plenty wrong with the inks of today. There is much to be desired.

Newspaper publishers are constantly getting complaints from the public, particularly the ladies, whose white gloves become dirty while handling the daily paper. Many men criticize the publisher for not using an ink that will not smear up their hands. He feels that the solution to the problem of ink mist is still a long way off.

In considering heat set inks, Adler stated that all of you have very likely noticed how easily black printed matter smears when handling many of the national publications. This is due to the natural oil film on a person's hands acting as a solvent on the ink. He asserted that such a defect as this can easily be overcome at a slight increase in the cost of the ink. However, this probably won't be done until the public demands it.

A new and improved lithographic gold ink is desired—one which transfers from the rubber blanket on the offset press to paper efficiently and without piling, and which has the brilliancy of letterpress printing.

It is desirable to have improved daylight fluorescent inks along the lines of better press workability, stronger colors to approach results of silk screen, and permanency to sunlight.

Adler said: "We would like three-color process inks with the brilliancy and clarity of the pure theoretical colors of the spectrum. The goal is there but its attainment is far off. There is a wide gap in the clarity of tone between the 100% transparency of light and the comparitively opaque pigment colors.

A New Printing Process

The speaker discussed briefly a new process of printing which is being developed and is expected to be on the market within two years. Patents have already been granted and others applied for to cover the unique printing method. This is a combined venture of the printing equipment and ink industries. The process consists of distributing a special ink on a hot printing plate. The heat of the plate dries off any solvents, causing the ink to be dry on the plate before the impression is made. As the hot plate with the ink dry comes in contact with the paper, the ink is transferred to the paper in the dry state and hence the ink film is dry as the paper leaves the plate. By this method, the ink transfers completely to the paper leaving no residual ink on the plate. The inventor of the process calls his method, "the complete transfer method" of printing.

The subject of engravers' proofs came up after the completion of Dr. Adler's address. Dr. Adler stated that engravers, because of long habit, insist on heavy bodied inks. This accounts for the differences in printing in the final product when compared with the engravers proofs.

Skilled Men— Work With 'em To Lower Costs

Working With People was the title chosen for a clinic on human relations held during the Intl. Assoc. of Printing House Craftsmen's convention held in Los Angeles, August 14. The entire session was devoted to the discussions regarding the human element in the printing plant and the treatment of employees by management through proper lines of communications. Mark Carothers, manager, Printing Dept., First National Bank of Dallas, and Intl. treasurer, presided as chairman. Seated on the platform with him were William Gutwein, president, William Gutwein, Inc., Louisville, Ky., and Peter Bernard, personnel director, H. Wolff Book Mfg. Co., New York, N. Y.

The title of William Gutwein's address was *Getting the Most Out of Skilled Men*. He led off his address with the statement: "Getting the most out of skilled men—or not getting it—can make a difference between success or failure of a company in its struggle to win the battle of competition. Management, of course, has always been interested in getting the most out of skilled men but has not always observed the techniques for doing so."

Gutwein asserted that, "No skilled man, worth the label, likes to have a bad production, quality, cost, or time record. When he isn't able to always do his best, it is possible he doesn't have the right equipment, materials, or conditions under which to work; or else, the human relations climate around him retards his willingness to perform to his full personal potential.

Tips on Obtaining Results

Gutwein presented a number of tips with respect to observance by management and supervisory personnel for obtaining maximum results. The first of these was related to making sure a supervisor or management executive has the whole story in case of difficulty. He advised being sure of having all of the facts before imposing criticism or discipline upon skilled men for poor performance.

Gutwein's second point was: "Be sure to instruct or give orders properly." Very often, he said, a human relations atmosphere can be upset by violations of basic principles of proper instruction. This often occurs when important specifications or other details of a job are not transmitted clearly.

The third point, advised Gutwein, is to watch your manner and tone of voice. He said the authority and responsibility connected with being a supervisor or a member of the management team does not entitle you personally to ignore commonly accepted rules of treating people with dignity and respect. Many capable supervisors have undone the good their knowledge and experience means to the company because they did not know how to handle themselves personally in their dealings with the men.

The fourth point brought out by Gutwein was to always let men know how they are getting along. Because skilled men usually have pride in their work, it is natural for them to hear once in a while whether their work is satisfactory or is improving, or what they have to do different than they are doing to be acceptable.

The fifth point mentioned was to encourage and give credit for suggestions. In the routine work of a skilled man, many ideas and changes occur to him which can help the production, costs, or quality of the job.

A sixth point mentioned by Gutwein was that management executives and supervisors should never stand in a man's way. All skilled men have a dream and vision of sometime being in a higher position of responsibility and authority, and are willing to learn and sacrifice as much as they can to be worthy of getting ahead.

Point number seven was: "Admit your own mistakes. When you are honest in admitting your own mistakes, the criticism or suggestion you have of a skilled man's work under your supervision appears more fair and genuine. Following the policy that the boss is never wrong not only creates more class consciousness between labor and management but encourages the creation of safeguards and appeals against the injustices and prejudices."

Never Pit Skilled Men Against One Another

Competition between skilled men is good. However, the manner in which it is developed is important. In our industry, where several crews may work on the same job, avoid the type of rivalry which sets each one at the other's throat. An example of this is the job of making ready on the press. Very often the work is done over, or changed merely because the crews which follow one another were trying to prove themselves more capable than the other.

Point number nine consists of establishing simple lines of authority. Gutwein advised avoiding the possibility of too many bosses. A skilled man likes to be responsible to some one person, preferably his immediate supervisor. Quite often this principle is not completely adhered to by management. The owner himself sometimes feels privileged to give orders to the skilled men.

The tenth point consisted of keeping the plant clean. Cleanliness has a psychological influence on job performance.

Safety—Its New Significance To Graphic Arts

The subject of Peter J. Bernard's address was *Safety—Its New Significance to the Graphic Arts*. Bernard said: "When speaking of accidents (in the plant) we are often misled in thinking that accidents mean only personal injuries. However, when an accident occurs, several things usually happen. One or more workers are injured, a machine may be damaged or wrecked or material may be spoiled. In all cases, there is a loss of production time and efficiency.

"The Graphic Arts industry," he said, "has a few large plants, but consists mostly of medium and smaller size companies. The latter are not able to employ specialists in all phases of plant operation. Therefore, they must rely on managers and supervisors whose duties are varied, with the result that the duties considered most important occupy practically the entire day, leaving little time, if any, to safety or employee programs. Records show that the small plants employ about half of all American workers and suffer more than two-thirds of all occupational injuries. This is principally due to the lack of a safety program or because safety is treated as a sideline. But where safety is considered an

Pacific Society Elections

George Y. Martin, College Press, Corvallis, Ore., was elected president of Pacific Craftsmen's Society at the Pacific Society Conference held August 11, in Los Angeles. Other officers elected were: first vice president, Eugene C. Gallagher, San Francisco; second vice president, Harry Sorley, Vancouver, B. C., Can.; third vice president, Robert H. Kerr, Los Angeles, and secretary-treasurer, J. Henry Willis, Portland, Ore.

The 1957 conference will be held, June 28-29, Sacramento, Calif.

Eight past presidents of the Intl. Craftsmen's Assoc. were in Los Angeles. Left to right are: Perry R. Long, Gordon J. Holmquist, both of L. A.; Tom Mahoney, Chicago; A. R. Tommasini, Berkeley, Calif.; Howard King, York, Pa.; Frank McCaffrey, Seattle; Tom Cordia, San Francisco; Homer Winkler, Columbus, O.

integral part of production, the accident rate is lower."

Reducing Accidents

Bernard reviewed briefly some of the most important steps taken by company management to bring about reduction in accidents and to further improve the safety program.

The first of these referred to the hiring of new employees. During the initial interview, we have a good opportunity to acquaint the applicant with the company's policies and what is expected of him with regard to safety and observance of all rules.

The next point is related to the foreman and supervisor. Since a company must rely heavily on its supervisory staff, it should be very careful in the selection and see that they are properly trained.

Bernard also believes that in order for a foreman to be successful and be a good instructor he must be completely sold on the company he works for. In addition, he must be enthusiastic about his job and the product he is turning out so that new employees will feel there is a good future in the Graphic Arts field.

Craftsmen Receive Pressroom Advice

The pressroom and problems connected with it received the attention of Craftsmen attending the International Convention in Los Angeles. Three speakers, Karl Hoffman, field engineer, Printing Developments Inc., San Francisco; Basil Parsons, vice president, Thomson-National Press Co., Franklin, Mass.; and Alan S. Holliday, president, Craftsmen, Inc., Kutztown, Pa., presented papers dealing with offset presswork, die cutting and embossing, and the 3M makeready system. Presiding at the clinic was Albert L. Kolb, Buffalo, N. Y., Intl. governor.

Tips on correcting problems in lithographic presswork were offered by Hoffman. In reference to clamping a plate on the cylinder, he said: "Stretching a dry plate to a dry cylinder could be improved with a lubricant of half oil and half kerosene which would make excessive clamp tension unnecessary."

He also advised the Craftsmen to remember that if the press ran well yesterday and the job today "is a pain in your neck, you will likely find your trouble above that point." Press manufacturers, he counseled, will adjust a press to the point of best mechanical performance but can't make it print beyond that point.

On setting form rollers, he said, ". . . a single drop can tell you no more than the spot dropped is level and has the width desired. No soft roller is ever a true cylinder, so it is necessary to make at least four such tests around the diameter of your rollers. . . . I am at long last convinced that no two presses can be packed alike, and I have been made to swallow it on more than one occasion. Most presses have a guide plate that indicates the undercut of the cylinders, and the amount of bearer pressure is sometimes also indicated by the manufacturer. This is important information for a starting point, but all paper, ink and blankets won't always respond to these dimensions."

In conclusion, Hoffman mentioned that ink and paper abrasion can at times cause the loss of a plate. The reason for this, he thought, was that the supplier lacked information on what was expected.

Cutting, Creasing Advice

Proper procedures in cutting and creasing makeready were offered by Parsons, who has had 37 years of experience in doing this work on platen presses. He emphasized the need for a hard steel plate to cut against—not sheet iron or brass. He also emphasized the need for a "kiss impression" rather than punching the paper.

Parsons advised careful cutting and "perfectly straight and even" grooves or channels when making the "female" part of the creasing makeready into which the creasing rules will push the sheet when cutting and creasing simultaneously. Ordinarily, the width of the channel should be about twice the thickness of the creasing rules used on a job.

According to the speaker, nicking of cutting rules in the die is often necessary to hold the sheet together when being taken out of the press to the delivery. The amount of nicking depends on the number of individual pieces being cut from a single sheet, the type of stock being cut and how the grain is running. Less nicking is required on a platen press than on a cylinder for the reason that the sheet is kept flat at all times and no one should ever nick the cutting rules more than necessary. This can be determined with a little experimentation.

It is also wise, he said, to watch out for the maximum cutting load put on any particular press. Many people who do die cutting on platen presses overload a machine by trying to do too much.

Speakers at the Presswork Clinic, left to right, were: Karl Hoffman, San Francisco; Al Kolb, Buffalo; Basil Parsons, Franklin, Mass.; Alan Holliday, Kutztown, Pa.

Reports on 3M Makeready

Holliday, the concluding speaker on the program, provided a concise description of the system followed at his plant, Craftsmen, Inc., in using the 3M makeready process developed by Minnesota Mining & Mfg. Co. The speaker staggered the audience with the statement that the 3M process has reduced his company's makeready time by 200%.

Holliday is also director of research of Hughes Corp., New York, N. Y., which comprises six plants in different locations in the East and prints several hundred different publications. He mentioned that the process and systems developed for use with it are being used in all these plants. Holliday's report on the 3M process will appear in the October issue of *Printing Equipment Engineer*.

Bookbinding Ideas

Technical discussions relating to bookmaking and the bindery formed the subject of one of the closing clinics at the Los Angeles Craftsmen's Convention. Speaking on *Book Production from Author to Consumer* was Ernest Desroches, production manager, L. W. Singer Co., Syracuse, N. Y. The other speaker, Earle Gray, president, Earle Gray Bindery, Los Angeles, chose *Plan the Job From the Bindery End* as his topic. Moderator at the session was George Wise, new International president.

Desroches exhibited a number of printed production aids necessary to the proper functioning of a book publishing firm such as Singer. Among the production problems that he related was color scuff-off of four-color process printing on white cover cloth. He told how a book designer eliminated the trouble by coming up with a broken pattern for the background of the illustration so that the areas that would scuff wouldn't be noticeable. The speaker also suggested using a dyed cloth, in some cases, for the backbone of the cover which usually gets most of the wear. Dyed cloth, he said, does not scuff.

The idea of using identification marks on the folds of book signatures was passed on to the Craftsmen. Desroches described it as "a little key mark" on the back fold of all signatures. If one of the signatures is missing during the gathering operation a worker would immediately be able to notice it by glancing at the gathered signatures. The key marks do not show when the cover has been placed around the book.

Gray's talk dealt with binding books by the small printer. He offered tips on what the small printer can do and also what he should not do. Part of his talk concerned what he termed "the seven B's" of bindery operations: "Better binding of books through use of bindery brains of your bookbinder."

Platemaking Clinic Discussions Can be Found on P. 50

Common Impression Cylinder

Press

For Magazine Offset Printing

By GEO. R. BRODIE*

**Manager, Machinery Div., Fred'k H. Levy Company, Inc.* *Abstract of address delivered before Fifth District Craftsmen's Conference, Cleveland, June 1956.*

Four years ago the Reader's Digest Association asked us to build a common impression cylinder press. The press consisted of a single five color printing unit 72 in. wide, a flying paster, a drier and a folder. By using a 34½ in. wide web and by double ending, the press printed five colors on each side of the web.

The *Reader's Digest* double ender is capable of printing five colors on 72 pages *Digest* size per cylinder revolution, and has been in operation in Cuba since last November. The results have exceeded expectations in that acceptable quality printing was achieved in two months rather than the anticipated six months. The press was purchased with the expectation of obtaining a net production of 8000 i.p.h., and has for the last month (May 1956) been averaging 10,000 i.p.h. The press is, at the moment, limited in speed by the folder used in conjunction with it. As a result, it runs on the average at about 12,000 cyl. r.p.h. so that the net production is more than 75% of the running speed. This includes all the time the crew is in attendance at the press. In other words, it includes makeready time, wash-up time, and downtime.

The press was built with the idea of using ordinary letterpress paper. Since it has been in operation in Cuba, no papers that were specially sized or otherwise made for offset printing have been used. In fact, the paper has been of lighter weight and, generally speaking, of poorer quality than that used in the domestic issue printing with double five color letterpress.

Cylinder Gap ½ in.

We have been particularly gratified in that the innovations which we built into this press have worked out well. The lockup has proved to be satisfactory. The lockup permits printing the full circumference of the cylinder with the exception of ½ in.

In building this press we tried to combine European experience in common impression presses with modern American design. The press is very heavy, weighing 220 T., with 5 in. thick flame cut steel frames. All gears and bearings run in oil. All printing cylinders are mounted in pre-loaded bearings. All gears are cut, shaved, and hardened, and the press runs on bearers throughout.

Dampening Motion

In the dampening motion, we use the Aller flap rollers in place of the conventional ductor. The speed of this roll, which controls water feed, is controlled independently of the press through a hydraulic system so that it can be speeded up or slowed down at will.

The inking system has proved itself capable of handling any forms that have come along, and color control has been exceptionally good.

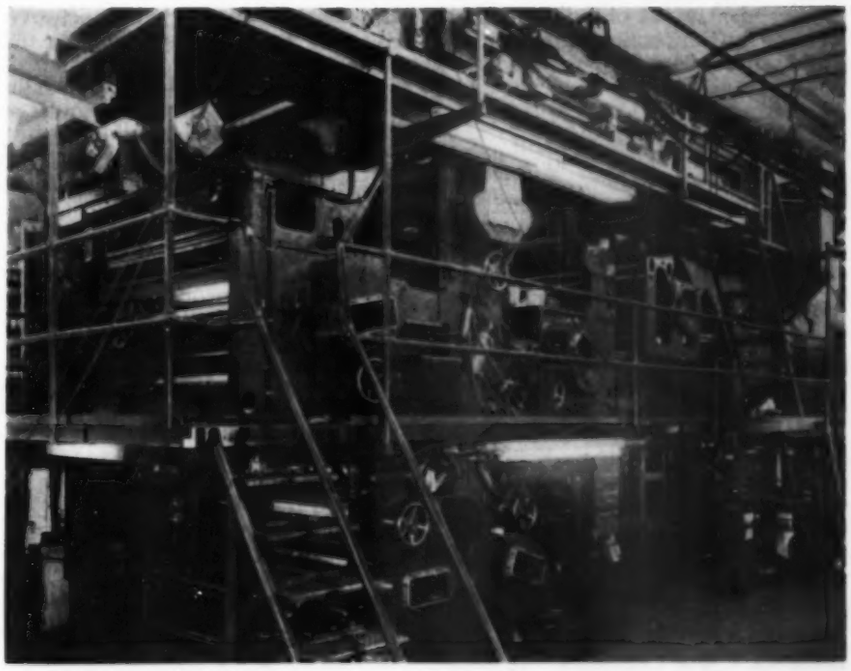
Aller Plate Life

In Cuba, we are using Aller plates, and the life of these plates in web press printing on coated paper may be of interest to you. The runs in Cuba are 500,000 and so far the plates have been able to survive the run, although the last 100,000 impressions may show some loss. However, it has been found that most of the plate wear comes from loose particles of clay from the paper coating getting onto the blankets or the plates.

Reducing Abrasion

In a web offset press, nothing should be allowed to disturb or abrade the web, flying paster belts, riding web break detectors, etc., should be avoided. For example, we have found it advisable to drive all idler rolls, since at high speeds the air current pulled through the press by the web decreases the driving effect of the web on idler rolls and they tend to run slow, and in so doing loosen the clay coating. In fact, in a web offset press, paper should be taken through it with the least possible amount of disturbance. Evidently, anything that can be done to cut down any abrasion, however small it might be, is important.

When the press was first conceived, it was decided to install a flying paster. Three rolls can always be run and frequently as many as eight have been run. Since it takes about 40 min. to



View of *Reader's Digest* double ender offset publication printing press now in operation in Cuba. Press was built by Machinery Div., Fred'k H. Levey Co., Inc. Prints five colors on 72 pages, *Digest* size per cylinder revolution.

run a roll, a roll being 10,000 impressions, production is at a high level, paper waste is low, and blanket washups are necessary two or three times a shift.

Register Within Half Dot

The highlight of the operation in Cuba, however, is the fine register obtained. The press actually holds register within ½ dot. This performance is not affected by paper, by humidity, or by any other conditions. The press is 71 in. wide and takes a plate 71 in. by 49 in. A five man crew can remove five of these plates, put on five others, and accomplish a complete makeready in 5 hrs. Web breaks have been brought under control—143 rolls of paper having been run without a web break.

The McCall Press

At about the same time as the Cuban press started up, we installed a four color roll to roll press in the McCall Corporation plant in Dayton, O. This is a small press with a 17⅞ in. cutoff, prints on a web 24 in. wide, and is made to run at a speed of 550 f.p.m., which, is fairly high since it amounts to 22,000 cyl. r.p.h. The McCall Corporation purchased this press to print pattern envelopes which are printed, dried, rewound, and then fed through an envelope machine. A web 16 in. wide is used and this is slit into two 8 in. ribbons which are rewound on double spindles.

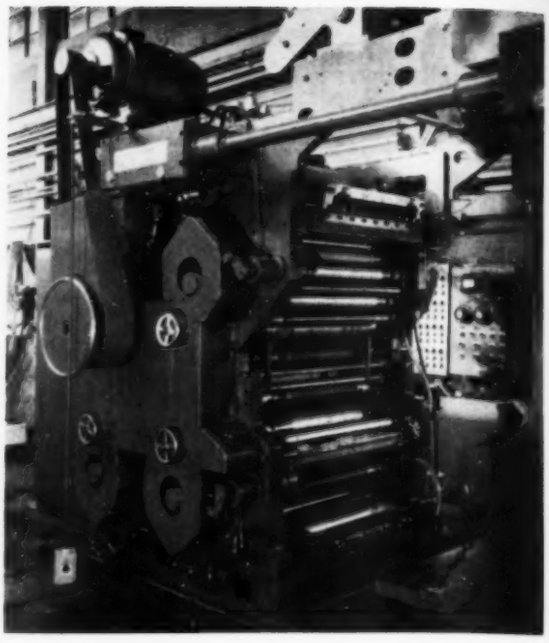
The press is in operation with a two-man crew, works two shifts a day for a total of 15 hrs. In that time, 16 different four color jobs are frequently put on and as many as 175,000 impressions are run. In other words, 64 different plates are put on in 15 hrs.

Press Sequence Control

On presses we are now building we are making several improvements. One of these is automatic sequence control. After the press is up to speed, the pressman pushes a single button and the press automatically goes into action and starts printing. With sequence timing, after the button is pushed, the right things are done in the right sequence automatically. The time between each sequence is set, and it is followed each time the press is started.

Deterrent to Offset

In the publication field the greatest deterrent to the use of web offset is the splendid production records now being achieved by letterpress. For example, in the printing of *Life Magazine*, on letterpress double five color presses, there is one company that actually



Four color roll to roll offset printing press in plant of McCall Corporation, Dayton, O. Built by Machinery Div. Fred'k H. Levey Co., Inc. Pattern envelopes are printed on this press. Envelopes are printed, dried, rewound and then are fed through an envelope machine.

schedules its presses to produce 400,000 impressions in 24 hrs. The company is keeping up with this schedule, and frequently produces as much as 430,000 impressions. This press is 44 11/16 in. circumf. and is 50 in. wide. Other companies printing *Life Magazine* are closely approximating this net production. I was recently informed that a double five color press with 47 in. cutoff, 72 in. width, produced 158,000 impressions in 22½ hrs. Letterpress publication printers throughout the country are obtaining production equal to, or approaching, the above, and such production has become a factor upon which they can count.

Very few web offset presses of this size have been built and none of them have achieved similar production. Hence, when a large publication problem comes up and the question arises as to whether it should be printed letterpress or offset, all other factors may pretty much equalize out, and the decision hinges on probable net hourly production. The printer is then faced with the fact that he knows exactly what he can get letterpress, and he has to estimate or guess what can be accomplished with offset. Since he is balancing known facts against estimated facts, the tendency is to be cautious in setting up the possible hourly net achievable by offset.

Let's say that a large publisher wants a four color job printed that would call for four forms each of 4,000,000 impressions. I picked the 4,000,000 because it is within the life expectance of a good electrotype.

Press Production Factors

The paper is poor and the job will repeat several times a year. Letterpress makeready time is 60 to 70 hrs. In offset you would have to figure four sets of chrome plated Aller plates, but all four makereadies would take a total of 20 hrs.

Experience indicates that a double five color letterpress machine would net 14,000 i.p.h.; an offset press running at an even higher speed, due to lack of knowledge and conservative thinking would be figured at 10,000 net i.p.h., allowing for blanket washups and other unknowns.

Figuring costs on this basis would give letterpress a slight advantage that could be overcome by raising the offset net to 12,000 i.p h.

In Cuba, we are running three to eight rolls without stopping, using coated paper. On poor quality papers as many as three rolls have been run. As more offset is used, I feel sure that publication papers will be adjusted so that it will be possible to run several rolls of any paper in large demand.

I also believe that 4,000,000 impressions could be obtained with less than four sets of plates. There is a plus factor in the use of four sets of plates in that with each offset plate change another form could be run so that after 4,000,000 impressions, where letterpress would have completed one of the four forms, offset would have ¼ of each of the four forms. This would, of course, reduce the storage problem of signatures and would greatly facilitate bindery operation.

We are now building two large double four color web offset presses which will go into the publication field. I think that two years from now when the impact of these presses has made itself felt, that the process will be in a very com-

petitive position with letterpress even in spite of the fact that most advertising matter is now made up primarily for letterpress and has to be converted to offset.

Brush Inker in Place of Ductor

In our new presses, we are incorporating a brush inker in place of the conventional ductor. The brush inker consists of a Nylon brush positioned in the place normally occupied by the ductor roll. This brush runs in a fixed position just touching the fountain roll, on one side and the first steel ink drum on the other side. The surface speed of the bristles in the brush is faster than the fountain roll but much slower than the steel distributor. The device effectively bridges the surface speed differential between the fountain roll and the steel distributor. Ink control across the press is obtained by the conventional keys under the fountain blade. The overall or sweep adjustment is obtained by a variable speed drive which slows down or speeds up the geared together fountain roll and brush. In a magazine application where the press runs 24 hrs. a day, 6 to 7 days a week, such a brush has run 18 months without perceptible wear and without cleaning or adjustment on a black fountain.

The brush sends a steady stream of ink into the inking mechanism rather than the intermittent flow supplied by the ductor. On a double five color letterpress running at 1400 f.p.m., it has been found necessary to stop once per shift to set ductor rolls.

The conventional fountain blade

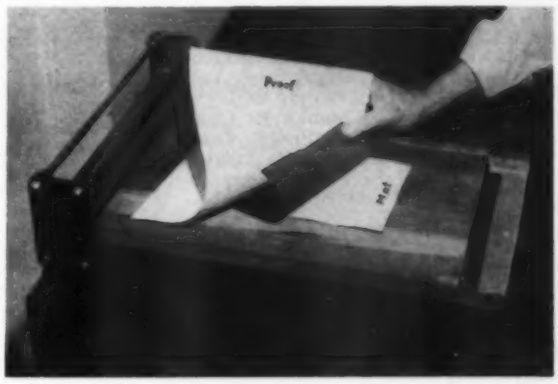
(*Continued on Page* 75)

Proofing Stereotype Ad Mats

By RAY S. BROWN

In order to make a display advertising layout, proofs of the illustrations are needed so they can be fitted into the reading matter. If the illustrations come in the form of mats, without proofs, the mats must be cast before ink proofs can be pulled. This frequently delays completion of the layout until close to publishing deadline. This delay can be avoided if the mats themselves are proofed, and the proofs pasted on the copy. The use of mat proofs also enables the advertiser to substitute one mat for another at the last minute.

A fast and effective way to proof the average size mat is with an ordinary roller proof press having a 12 in. wide bed and a 2 in. rubber impression roller mounted in ball-bearings. It requires no ink, but instead uses the offset from carbon paper. This press should be mounted on a table in the advertising office and used for no other purpose.



A simple proof press of the 12 in. bed width variety is used to proof stereotype mats without benefit of ink breyer or fountain. The press bed is built up as described by Ray S. Brown. A sheet of pencil variety carbon paper is laid face up on the mat. Then the proof paper is laid on the carbon paper. The impression is then taken. Proof is good enough for identification after fastening it to the ad layout in proper position.

Preparing The Press

To prepare the press for proofing mats, first build up the bed with two cork molding blankets—one ¼-in. and one 3/16-in. thick. Pieces cut from used blankets will do. On the corks lay a piece of ½-in. plywood, making a total buildup of 15/16-in. This assembly should be prevented from skidding by an ordinary angle iron stop attached to the bed at head and foot of the bed assembly. The bed assembly should offer a slight resistance to passage of the roller over the bare wood. The edges of the plywood block should be bevelled.

Miniature reproduction of proof taken direct from stereotype mat by the Brown method described in accompanying article.

Proofing the Mat

To proof a mat, first lay the mat on the block, face down. On the mat lay a piece of carbon paper of the pencil variety, face up. On this lay a piece of white or newsprint paper. Then pass the roller over this combination. Considerably more pressure is required than is needed for proofing type. It may be increased by underlaying the plywood block with cardboard. To bring the lines up sharp, most of the mat bolster should show faintly on the proof. Several small mats may be proofed at one rolling.

The resulting proofs will enable the layout man and the ad compositor to identify the pictures, the display lines, and even some of the small type. The proofs may be trimmed and attached to the layout.

The cushioning effect of the corks and the rubber roller permit mats of varying thickness to be proofed without changing the underlay. The mat bolster, being highly elastic, will spring back after proofing, without noticeable loss of depth.

Platemaking Processes Yield To Demand for New Techniques

A reawakening of interest in rotary letterpress and a movement to encourage all major printing processes to work together were heralded as "two fortunate changes in thinking" that have taken place in the last five years by Howard Carroll, speaking at the Platemaking Clinic held during the Intl. Craftsmen's Convention in Los Angeles, August 13. Carroll, who is president, Carroll Photo Engraving Service, San Diego, Calif., and vice president, Southern California Photo Engravers Assoc., was one of three speakers on a panel chairmanned by Thomas L. Cooper, president, Southern Photo Process Engraving Co., Atlanta, Ga., and now Intl. governor.

Letterpress In A Whirl

Carroll, who labeled his talk, *Letterpress Goes Into A Whirl*, credited the American Photoengravers Assoc. with the increased interest in rotary letterpress. The APEA, he said, ". . . has continually pointed out that by etching complete plates containing all elements of the job, and by fastening these plates onto a rotary cylinder, makeready costs could be greatly reduced and greater press speeds obtained, particularly when using light metals such as magnesium."

The speaker told of an interesting comparison between present offset procedures and the coming rotary letterpress made by Frank Schreiber, APEA secretary. Schreiber said: "The photographing, stripping and printing operations will be virtually the same in both processes. Preparation of an offset plate to make it ready for the press requires but little time. The etching of a letterpress plate with new 'one-bite powderless procedures' is also a matter of minutes. To put a plate on the press for either process will take the same amount of time. The offset pressman must adjust his ink, water fountain and rollers . . . whereas the letterpressman needs only to adjust his ink supply. Both must regulate the impression and that is easily accomplished in either case since only a thin plate is involved. As to speed, the rotary letterpress will run just as fast as an offset press, and probably faster. There will also be less idle time because the water element does not enter into letterpress printing."

Part of Carroll's talk hit at the "unfortunate custom" of "running down" printing processes. He said: "This new concept of cooperation may prove to be a bit confusing to some of our 'old timers' . . . but whether the 'old timers' like it or not, letterpress and lithography are going to be working more closely together as time goes on."

A review of new developments in lithographic platemaking was provided by the second speaker at the session, Bernard Sears, vice president, Graphic Arts Corp. of Ohio, Toledo. His statement that "there is no excuse for any shop not having up-to-date knowhow," was followed by the appeal that "the most needed change is in your attitude towards these improved tools, materials and methods which provide economy and better quality."

Litho Developments

Some of the new developments touched upon by Sears included new stable base photographic films, which assure register for color work. Motor driven arc lamps save on electrical current and carbons at the same time giving more intense light for shorter exposures. The Unitronics cold cathode lights, he said, prove excellent for making black and white screen positives or negatives from continuous tone cutouts.

Platemaking Clinic speakers (left to right) were Frank Wilbar, Burbank; Bernard Sears, Toledo; Tom Cooper, Atlanta; and Howard Carroll, San Diego.

Camera composition of intricate color work in the place of wet or dry stripping has, according to Sears, improved the quality of such delicate inserts without increasing the lapse of time for this operation. The same method provides an economical and convenient way to shoot out reverse type and shoot in positive type so that the end result of the finished plate is neat without film edges to turn up and collect dirt.

Exposure time on the camera can be reduced not only with improved lighting but by employing the one stop exposure system with the conventional glass screen instead of using two or three stops. The one stop system will greatly improve detail in offset negatives. Also, Sears continued, the use of contact screens is universally employed today and has been a big boon to the making of negatives and positives.

The use of highlight and outline masks give accurate results without the need of hours of opaquing that it sometimes takes on intricate work.

"Color correction by camera masking . . . is so important . . . that firms involved in producing color process work are unconsciously planning their doom if they ignore it just because they challenge its proven usefulness," Sears asserted.

Short Cuts to Color

The use of the Time-Life scanner is another short cut to faster and sharper four-color work. The service is fast, he commented, and grouping of small transparencies makes it very economical.

The use of glass prints, also known as Photolacs, for multiple negatives and/or positives has many advantages. Sears said: "Do not be misled by the old precedent that Photolacs are not dependable. Sure they used to fade out, they were not opaque and usually turned to a brown or amber color. But present day Photolacs are as black as your hat, as black and opaque as any silver emulsion and will not fade."

Referring to offset stripping, he said: "Today, the percentage of deep etch plates exceed the use of albumen plates, making it necessary to have positives instead of negatives. Therefore, the use of double printing methods in preparing your film positives provides for much neater work, permits closer inserting and does away with the old hazard of out of contact prints due to overlapping tape or film. Also, the more up-to-date methods of stripping and assembly is better where the positives have to be stored for long periods."

Proper Dot Etching

Many mistakes are created by starting to do dot etching before a careful analysis has been made. The speaker cautioned, don't dot etch an area if it doesn't need it. However, where dot etching is carried on, good staging and staging solutions are most necessary. Staging solutions that adhere to wet emulsion without permitting the cyanide solutions to undercut or curl the edges are available.

The use of improved intensifiers to restore areas that have been etched slightly too far are now on the market. The old method of staining cutouts is pretty much frowned upon today. However, there are neutral dyes on the market that when properly applied provide an excellent method of correcting densities in

areas. Whenever using such dyes it is best to stage the area before applying the dye, and always emerse the plate in a tray of dye solution.

Sears also mentioned that in 1926, the national average for an albumen plate was 25,000 impressions and the national average for a deep etch plate, which was then brand new on the market, was somewhat short of 100,000 impressions. Today, polymetallic plates are providing runs well beyond one million impressions. Deletions and additions on these plates are no longer a handicap. Printing Developments Inc. has worked out a method of replating the chrome surface for deletions. Additions, in most cases can be inserted by recoating, exposing, developing and etching that new part of the image.

On the coating of the lithographic plates, Sears said, it may appear to be just an ordinary operation but coating thickness is most important to getting consistent plates. When casting the coating on the plate it is found that the temperature of the water used in flushing the plate prior to coating has much to do with the coating thickness as does the speed and temperature of the whirler. After exposure, developing and etching should be given expert care. Timing and careful examination of the plate is imperative after each of these steps before applying lacquer ink and developing.

Four Color Process by Silk Screen

The concluding speaker, Frank S. Wilbar, McGraw Colorgraph Co., Burbank, Calif., dealt with *The Use of Carbon Tissue in the Preparation of Plates for Silk Screen and Gravure.* He emphasized the use of silk screen as a supplementary process and told the Craftsmen not to be misled in thinking that the process can cut costs in four-color process work. Wilber added that four-color process reproduction by silk screen is limited to 40 and 60 line halftones.

Tremendous Printing Volume Increase Shown By Preliminary Census Report

Industry Group and Industry	1954									1947	
	All employees		Production workers			Value added by manufacture	Cost of materials etc.	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Number (1,000)	Payroll (Million dollars)	Number (1,000)	Man-hours (Millions)	Wages (Million dollars)	(Million dollars)	(Million dollars)	(Million dollars)	(Million dollars)	(1,000)	(Million dollars)
PRINTING AND PUBLISHING	802	3,600	496	953	2,097	6,194			236	715	4,249
Newspapers	274	1,222	145	272	647	2,067	913	2,980	75	234	1,406
Periodicals	65	322	17	31	71	814	632	1,446	15	69	639
Books	62	257	28	55	107	533			15	52	326
Books: publishing and printing				(Not yet reported)						40	263
Book printing				(Not yet reported)						12	63
Miscellaneous publishing	18	71	5	10	24	142	82	224	3	12	72
Commercial printing	200	888	157	306	651	1,366	849	2,215	66	192	970
Lithographing	76	372	59	116	259	569	362	930	33	52	314
Greeting cards	21	68	15	28	40	130	75	207	9	18	81
Bookbinding and related industries	38	135	33	63	102	204			8	43	177
Bookbinding										22	90
Blankbooks and paper ruling				Not yet reported						9	37
Loose-leaf binders and devices										8	37
Miscellaneous bookbinding work										4	13
Printing trades services	48	265	37	72	196	369			12	43	264
Typesetting	14	74	12	23	57	106	14	120	4	11	67
Engraving and plate printing				(Not yet reported)						8	33
Photoengraving	18	112	13	25	83	149	24	173	4	17	116
Electrotyping and stereotyping	8	49	6	12	34	70	17	87	2	7	48

The preliminary report of the 1954 Census of Manufacturers, recently issued, shows a decided increase in volume for the printing and publishing industry over the last census report put out in 1947. Final report of the 1954 census will be out by the end of this year.

Although all figures on total sales are not yet available in the preliminary report, it is obvious that the Graphic Arts industry as a whole will run close to the $11 billion per year figure as offered in recent estimates. It is also safe to conclude that this is the sixth largest industry in point of employment. Figures show that there are now 802,000 people employed (1954) as against 715,000 in 1947—a 12% increase during the seven years.

Growth in point of volume over the seven years has been tremendous.

For example, a comparison of census figures for 1954 and 1947 shows that newspaper volume ran $2,980,000,000 in 1954 as compared with $1,917,300,000 in 1947—an increase of 55%.

Periodical business ran $1,446,000,000 in 1954 and $1,085,600,000 in 1947—an increase of 33%.

Lithographic volume was $930,000,000 in 1954 and $487,634,000 in 1947—a tremendous increase of 91%.

Commercial printing ran $2,215,000,000 in 1954 as against $1,521,655,000 in 1947—an increase of 45½%.

Although total sales on books is not yet available, it is obvious from the "value added by manufacturing" that the increase over the seven years may run 60% or more.

A comparison with other business fields shows that the printing industry is well above the average in point of gains made. In addition to the gains made in the areas of Graphic Arts listed above, there were likewise gains in miscellaneous publishing, in bookbinding and relating industries, and in the printing trades services. Complete figures are not given on all of these.

Shown in the table above is that part of the Preliminary Report of the 1954 Census of Manufacturers relating to Printing and Publishing.

Those desiring a full copy of the Preliminary Report of the 1954 Census of Manufacturers can obtain it from the Bureau of the Census, Washington 25, D.C., or U.S. Department of Commerce Field Offices. The cost is 20c per copy. Specify Series MC-G-1.

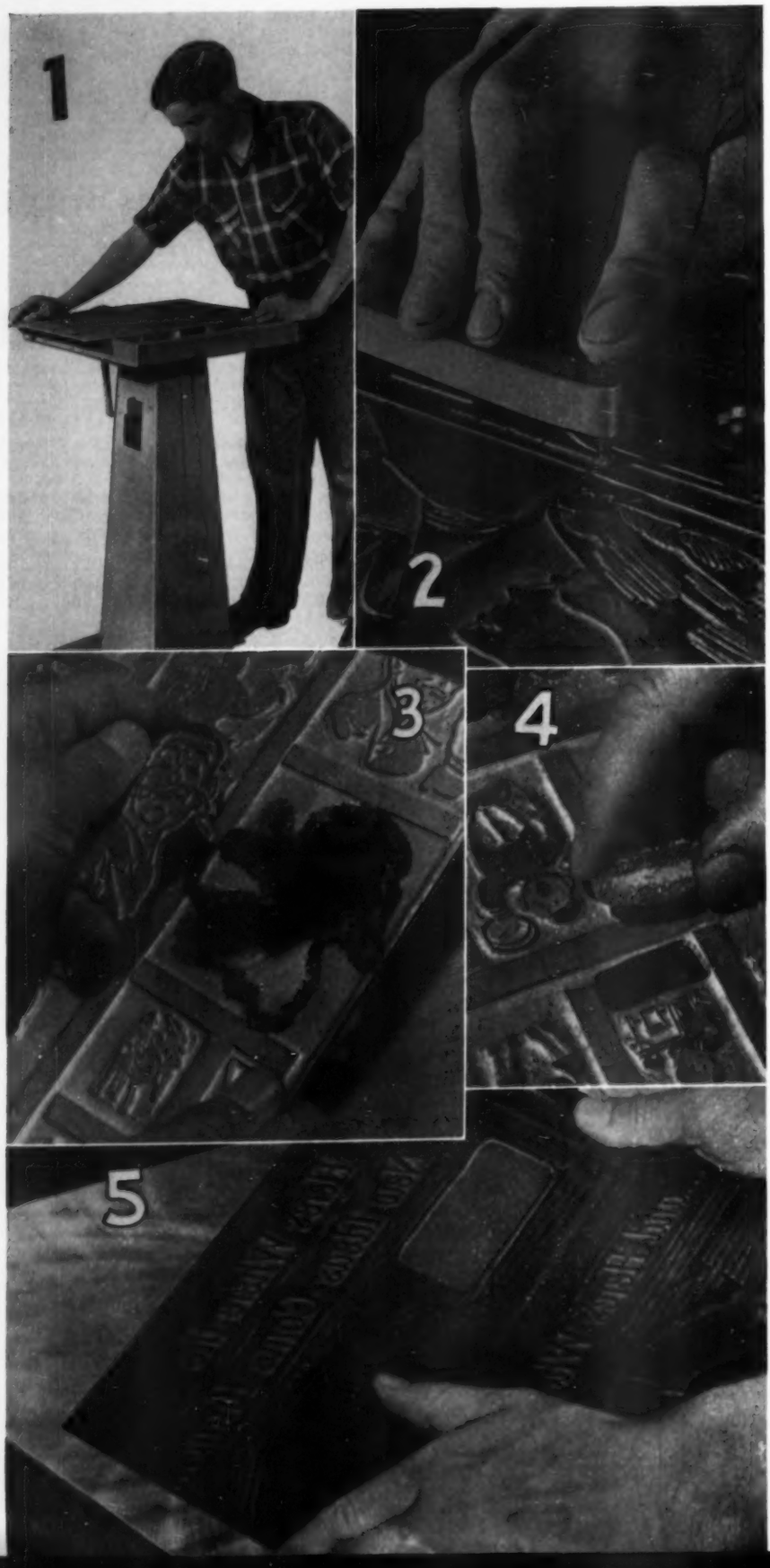
Carlson Shell Plate Finisher

The Carlson Shell Plate Finisher, manufactured by Chesley F. Carlson Co., is an interesting tool. It is used for cutting out illustrations from stereotype shell cast and/or plastic printing plates. The ⅛ in. diam. carbide cutting tool rotates at 22,000 r.p.m. The plate to be worked on is placed face up on the work table. The cutting tool is brought upwardly through the plate in the center of the initial cutting point from beneath the work table.

The cutting tool is held tightly in a chuck mounted on the upper end of the vertical motor shaft. The turning on of the motor as well as the upward and lower movement of the routing tool are controlled by a foot pedal in the base of the finisher pedestal. This permits the operator full use of both hands while cutting a plate.

In operation, the Carlson Finisher permits the operator to cut away any kind of irregular edge in one constant direction of travel. Thus the work is moved to the stationary but revolving cutting tool projecting above the surface of the plate. The cutting tool is designed to carry the chips upward and out to give a clean edge both at top and bottom of the plate and without burr or rough edge.

The special carbide cutting tool may be changed in a few seconds. The tool is held in a special chuck. A safety device prevents the motor from turning while the tool is being changed.



In Fig. 1 is shown a view of the Carlson Shell Plate Finisher. The lower extremity of the locating point lever can be seen at the left of the base column. Operator's hands are free to guide the plate. Routing tool power control is by foot pedal.

Here in this Fig. 2 the location for the first cut of the router tool is being made by the operator. The work locating point is being depressed into the plate. This point always locates centrally the exact position at which the routing tool will come through from underneath the plate.

In Fig. 3 is shown a stereotype shell cast illustration which has been cut from a large plate carrying a number of separate illustrations. The direction of travel of the work determines surface to which the chips will stick. Note the outlined section with clean edges—the chips stick to the waste part of the original large cast. The edges of the outlined section of the plate are vertical with printing face and base.

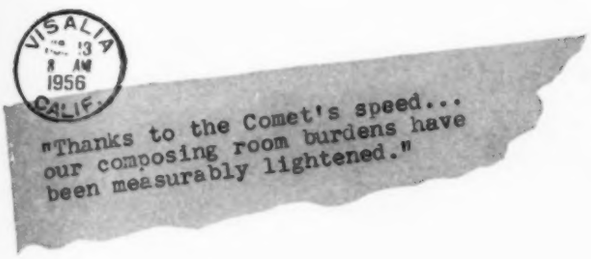
Inside mortises in plates (Fig. 4) for reception of key numbers, prices or signatures can be cut with ease. In this instance, all chips are attached to the cut-away section.

Here in this Fig. 5 a plastic ad plate has been mortised for reception of type matter. Sponsor states the special carbide cutting tool does not dull and permits cutting vertically to a very fine line without danger of breaking plate or tool.

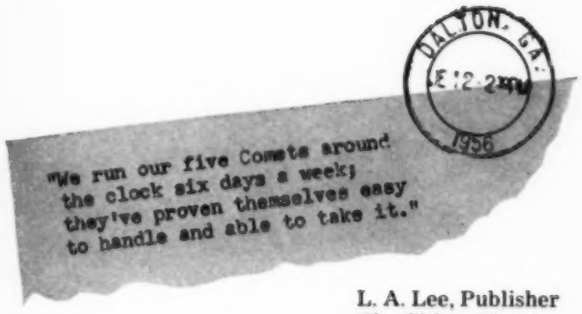
Universal motor from 115 v. current is supplied with the machine.

For more details please mention PEE No. 217 in your request.

Dependable Linotype Comets Save Money, Set Type FAST!



E. J. Quilla, General Foreman
Visalia Times-Delta
Visalia, California


DALTON, GA.
1956
"We run our five Comets around the clock six days a week; they've proven themselves easy to handle and able to take it."

L. A. Lee, Publisher
The Citizen-News
Dalton, Georgia

Publishers, machinists and operators from coast to coast rely on their Linotype Comets to beat daily deadlines *consistently*.

That's because the swinging front and keyboard, one-piece keyrod action, 70° magazine angle, extra-sensitive distributor clutch, efficient electric pot and other exclusive features make the Comet *unmatched* for speed, dependability and easy maintenance.

Get the factual story first hand, or arrange for a demonstration of the world's fastest straight matter machine. Just write your Linotype Agency.

DEPENDABILITY SATISFIES—"The Comet is all it is claimed to be," says E. J. Quilla, of the *Visalia Times-Delta*, as he checks the feather-touch keyboard action on a Comet. "We have had a minimum of only minor adjustments and are extremely well satisfied."

TOPS FOR PERFORMANCE—L. A. Lee, publisher of the Dalton *Citizen-News*, reports: "We're very pleased with our five Linotype Comets. They've lived up to all that was promised *and then some*! Maintenance costs have been surprisingly low and production exceedingly high."

Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, N. Y.

Set in Linotype Corona and members of the Spartan family

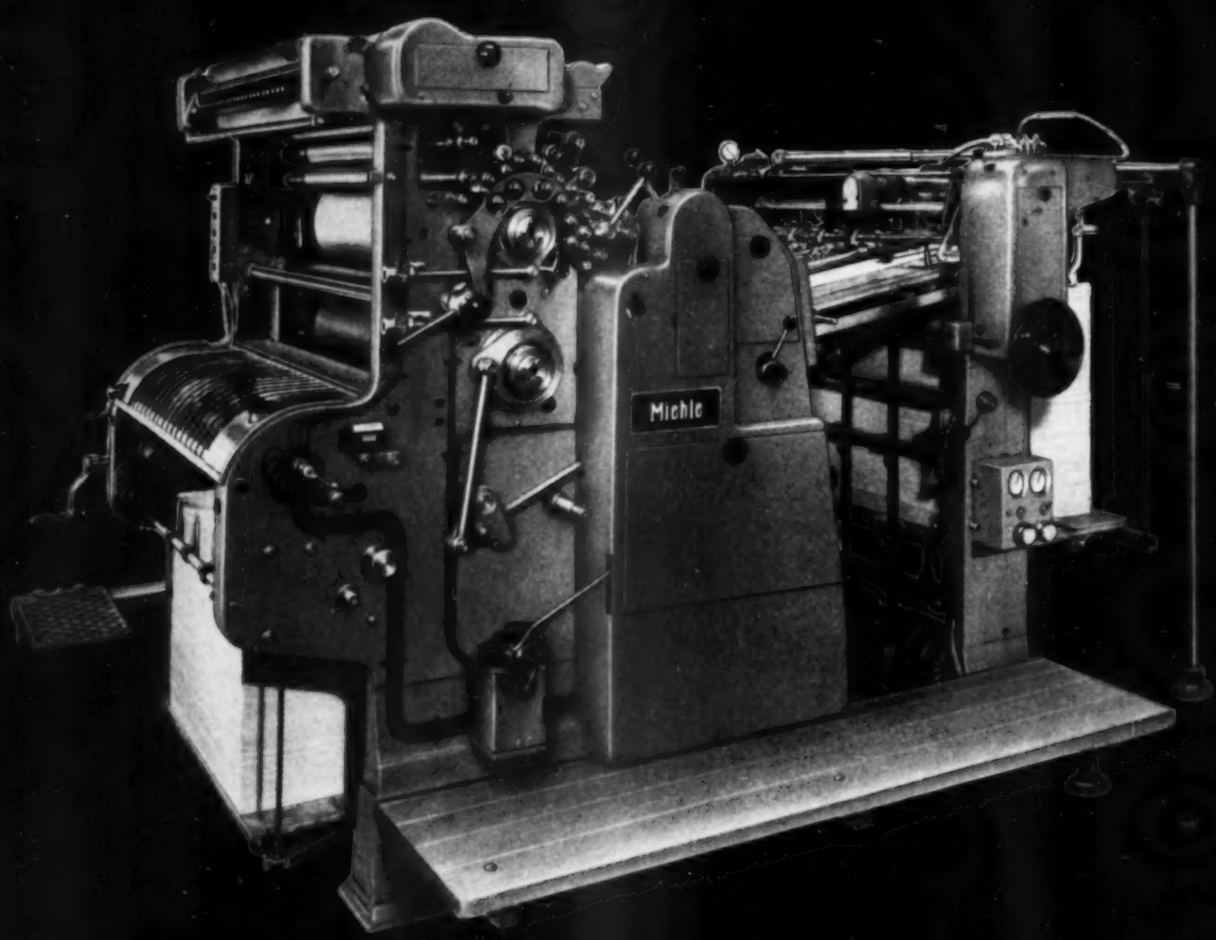
• LINOTYPE •

Agencies: Atlanta, Boston, Chicago, Cleveland, Dallas, Los Angeles, New York, San Francisco. **In Canada:** Canadian Linotype, Limited, Toronto, Ontario

LEADERSHIP THROUGH RESEARCH

The Miehle

From coast to coast, more Miehle 29 and 36 Offsets are being installed than any other presses of comparable size. They are the presses that carry the load—and earn the profits—in plants which place the most exacting demands on small offset equipment.



Performance is the reason...

From Coast to Coast It's . . .

The Miehle

29 and 36 OFFSETS

The following plants are among those which operate six or more Miehle 29 and 36 Offsets.

Allied Printing Service, Inc.
Indianapolis, Ind.

Color Crafts, Inc.
Stamford, Conn.

Conner Lithographing Company
Detroit, Mich.

Fakler Printing Company
Milwaukee, Wis.

Fine Arts Litho. Company
Dallas, Tex.

The Gibson Art Company
Cincinnati, Ohio

Griffin-Patterson Co., Inc.
Glendale, Calif.

Hooper Printing Company
San Francisco, Calif.

Jackman Lithograph Company
Cleveland, Ohio

D. F. Keller Company
Chicago, Ill.

The Lane Press, Inc.
Burlington, Vt.

LaSalle Litho. Corp.
New York, N. Y.

The Lund Press, Inc.
Minneapolis, Minn.

Regal Lithography Co., Inc.
Boston, Mass.

Sayers Printing Company
St. Louis, Mo.

Schuyler Press
Asbury Park, N. J.

Seiler Printing Company
Mount Joy, Pa.

Sleepeck Offset Corporation
Chicago, Ill

The Sterling Press, Inc.
Los Angeles, Calif.

Vile-Goller Printing Co.
Kansas City, Mo.

Williams & Heintz Co., Inc.
Washington, D. C.

Write for complete information

MIEHLE PRINTING PRESS AND MANUFACTURING COMPANY

Chicago 8, Illinois

Paper Storage Conditions

(By M. S. KANTROWITZ, chairman, Research Committee, Washington (D. C.) Club of Printing House Craftsmen, Inc.)

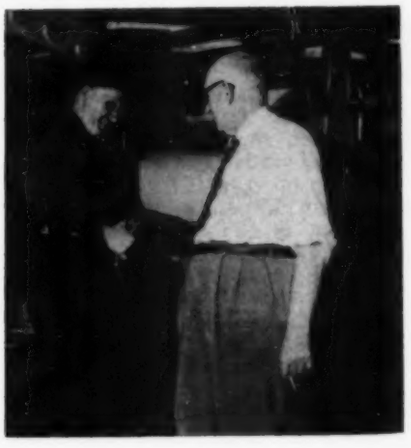
This article is prompted by an inquiry requesting information concerning proper storage conditions for paper and printed matter in order to avoid formation of mold and infestation of insects.

The necessity for storing paper or printed matter such as posters, books, cartons and boxes under correct conditions cannot be overemphasized. The development of molds upon paper or other cellulosic material depends, to a great extent, upon the moisture content and temperature of the surrounding air. The growth of molds increases with higher relative humidity and the maximum growth usually occurs with a relative humidity of approx. 95% and a temperature between 65 deg. and 105 deg. F. The decomposition of cellulose through molds and bacteria is brought about by different enzymes. These convert the cellulose to substances which serve directly as nutrient to micro-organisms.

As a general rule, no mold growth can develop on any material if the relative humidity of surrounding air is less than 75% and the temperature of the store room is 65 deg. F. or less. Conversely, in a moist and usually warm atmosphere, the molds feeding off the material on which they form produce organic acids which damage or may ruin the materials.

Mold infection can be held to a minimum by dehumidification. The installation of a dehumidifier in the store room is, therefore, advisable. The air should be constantly on the move by open windows so that the mold spores are given little or no chance to settle, and moisture on the surfaces of the stored materials will be evaporated. As much sunlight as possible should be let in. Stocks should be raised off the floor and stored on skids and, when stacked against walls, care should be taken that these walls are dry and clean.

Among the most active insects in the destruction of paper are the silver fish, cockroaches, beetles, book lice, moths and termites. Some of them, particularly the silver fish, will feed on the materials used in tub-sizing of uncoated paper or in the coating of enameled paper, namely, starch and glue. Fumigation is said to be the most satisfactory remedy. The relatively new sprays, DDT and Benzine Hexychloride, will destroy the insects if infestation has occurred.



***Daily Camera* Installs Goss Color Press**—Promotion of process color printing required installation of a color press at the plant of the Boulder (Colo.) *Daily Camera*. Following installation of a Goss Universal four unit press, the *Daily Camera* has produced a number of editorial color features and both national and local color advertisements. The 32 page Universal, equipped with a superimposed color cylinder, doubled the page capacity of the Boulder newspaper. Circulation of the evening *Daily Camera* exceeds 8500, while advertising linage has increased from 5,187,000 lines in 1951 to 7,407,498 lines last year. The 32-page Universal is the *Daily Camera's* fourth press in its 66 yrs. General Mgr. Lu P. Monroe stated the Universal press eliminates double runs, which formerly were necessary four or five times a week. The *Daily Camera* has also installed a Goss Plate Perfector. Shown is Publisher A. A. Paddock watching Pressman Stanley Yuzwiak plate up the Goss Universal press.

IF YOU CAN **Sell**

GRAPHIC ARTS EQUIPMENT

you must investigate this opportunity! Heidelberg Eastern is expanding its sales force. This means an open door to unlimited earnings with the best press in the field. You will be backed by an aggressive campaign, supported with successful promotions and given every aid to make a lucrative life-time career.

If you have actual press sales experience, all the better, but it is not essential. What is important is the ability to sell, plus a good working knowledge of printing equipment. Send all pertinent details about yourself to the nearest Heidelberg office listed below marked for the personal attention of the manager. All replies absolutely held in the strictest confidence.

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TWining 6-5500

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Columbus 15, Ohio
CApitol 8-2161

2015 South Michigan Ave.
Chicago 15, Illinois
CAlumet 5-2880

Type Transfer To New Cases

By C. G. ENSTROM*

**Mechanical Superintendent Marinette (Wis.)* Eagle-Star

The *Eagle-Star* recently purchased several new type cabinets. Inasmuch as we still use some foundry type, we had a job transferring the type from the old to the new cases. Our type point sizes extend up to 144 pt. There were 60 cases of type to transfer. Two of our ad compositors got their heads together and came up with a solution that enabled them to change the type from one case to another in 90 sec.

To do this, the bottom board from an empty case is removed without in any way damaging the box partitions. Then cut masonite or plywood board so it will fit snugly into the case frame. Tack the board to *top* side of the case. In effect, tacking the board on top reverses the case.

With the board uppermost, place the bottomless case on top of the case from which the type is to be emptied. Now fasten the two cases together with clamps. With a man on each side the cases are turned over, thus transferring the type to the reversed case or the one to the top of which the board has been tacked.

Remove the clamps and the now emptied old case. Place the new case on top of the inverted case and reclamp. Turn over the two clamped cases and the types will fall into their respective boxes in the new case.

An additional thought is that if dust and paper particles have accumulated in the old cases, these can be removed with a suction cleaner. It may be necessary, depending upon the type of cleaner available, to lay wire mesh over the top of the partitions when cleaning cases containing smaller point size type.

Present at the judging of the International Assoc. of Printing House Craftsmen Stamp Contest in Cleveland, July 25, were (left to right): Stamp Judge David E. Davis, assistant to vice president, American Greetings Corp., Cleveland; new Intl. President George Wise, Dugan-Millis, Inc., Cleveland; Chairman of the Stamp Committee David Crooks, advertising production specialist, Lamp Division, General Electric Co., Cleveland; and Stamp Judge MacD. Sinclair, editor, *Printing Equipment Engineer*. Winners were announced at the August Convention of Printing House Craftsmen in Los Angeles, August 12 through 15.

ATF Renews 60 Yr. Old C&P Line Representation

American Type Founders is again handling the complete line of Chandler & Price presses, paper cutters and accessories, renewing a 60 yr. old business relationship, it was announced by Milton J. Goger, president of ATF. C&P products were sold and distributed by ATF from 1892 to 1952 when arrangements between the companies were temporarily suspended. Says Goger, "For the customer the representation helps provide the widest possible variety of equipment to suit his particular needs, all under one roof."

Some of the C&P equipment American Type Founders will be handling is the Craftsman Automatic Platen press with speeds up to 2600 i.p.h.; the Super Heavy Duty Craftsman with speeds up to 2300 i.p.h.; side delivery automatic platens; a box press; the New Series Hand-fed presses, and the Pilot Press. C&P paper cutters include hand-clamp, hydraulic models; a lever paper cutter; a Bench Cutter; hand-clamp power cutters. Also included in the C&P line are safety devices, ink fountains, press brakes, vibrating distributor rollers and motor brackets.

Whiting-Plover Modernizes

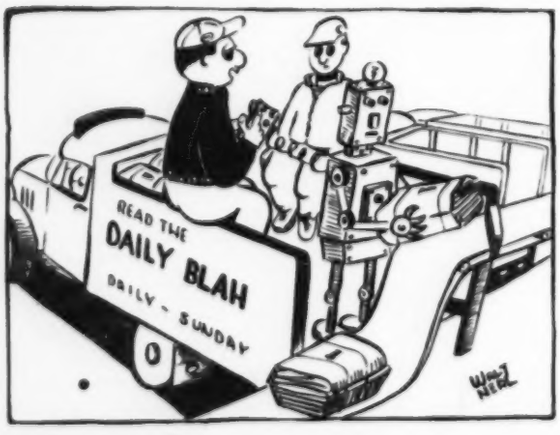
Whiting-Plover Paper Co., Stevens Point, Wis., will spend $900 thousand on its plant modernization and new building program in 1956-57, President Thomas Leech has announced. The program includes converting the company's power plant to a high pressure steam system, adding 32,000 sq. ft. of floor space for a new finishing department and purchasing new machinery.

IGAEA Elects Kennedy

Charles E. Kennedy, executive director, Southern School of Printing, Nashville, was elected president of Intl. Graphic Arts Education Assoc. at the recent convention of the association held at Santa Barbara College, University of California. He succeeds Otis H. Chidester, director of Graphic Arts, Tucson (Ariz.) High School.

KENNEDY

Other officers elected were: Howard Massman, Dayton (O.) Co-operative School, first vice president; Harold Hill, Durfee Intermediate School, Detroit, second vice president; Richard Hoffman, chairman of the department of journalism, Los Angeles State College, third vice president; Joseph Dreven, East Alton-Wood River High School, Wood River, Ill., secretary; and Vincent Coyne, Middlesex County Vocational School, New Brunswick, N. J., treasurer. Samuel M. Burt, Washington, D.C., continues as executive secretary. A. R. Tommasini, president, Intl. Craftsmen's Assoc., was the main speaker at the annual banquet.



"Yessir, Al, I never thought automation would affect us truck drivers."

Web Offset Presses . . .

BY LEVEY

FEATURING

- COMMON IMPRESSION CYLINDER construction insuring perfect register
- HIGH PRODUCTION SPEEDS—over 1000 feet of paper per minute
- EXCEPTIONAL QUALITY
- CUSTOM ENGINEERING to your requirements
- COMPLETE PACKAGE INSTALLATION—including dryer—folder—reel—motor drive and controls
- LEVEY SEQUENCE CONTROL—automatic timing of all press functions at start and stop
- BRUSH DUCTORS—a revolutionary new development and another "Levey" first
- ALLER PROCESS PLATES

FRED'K H. LEVEY COMPANY, INC.

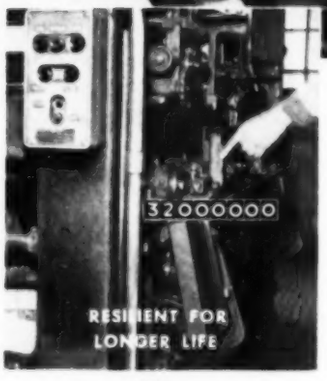
MACHINERY DIVISION • • • 4901 GRAYS AVENUE, PHILA. 43, PA.

A Division of Columbian Carbon Company

Glass armored drawsheets resist ink!

In this actual test run at the La Crosse Tribune, the plates were inked and an impression made directly on the blankets. The results of the offset when the web was fed through show clearly that Spherekote's glass-armored surface effectively resists ink.

Spherekote Drawsheets Reduce First Impression Offset Giving Sharper, Cleaner Reproduction at a Savings!



When eight of the top ten R.O.P. color newspapers depend on SPHEREKOTE Drawsheets, you know there's bound to be a quality difference. And, the difference is in the surface of SPHEREKOTE Drawsheets which is armored with multi-millions of *tough* beads.

The marble-like surface of SPHEREKOTE Drawsheets and Blankets has little affinity for ink. First impression offset problems are immediately reduced and the smooth, hard surface insures sharper, cleaner reproduction. You start saving money the day you put SPHEREKOTE Drawsheets and Blankets on your presses.

The millions of tiny, super-hard glass beads are fused to an extremely tough rubber base. The result is a resilience and uniformity that insures long press life. Costly press stops for maintenance are held to a minimum. For a *free* SPHEREKOTE Drawsheet and Blanket demonstration, or information, write: Minnesota Mining and Manufacturing Co., Dept. FM-96, St. Paul 6, Minn.

REG. U. S. PAT. OFF.

SPHEREKOTE BRAND | DRAWSHEETS AND BLANKETS

PRODUCT OF 3M RESEARCH

Made in U.S.A. by Minnesota Mining and Manufacturing Co., St. Paul 6, Minn. General Export: 99 Park Ave., New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario.

Being the largest independent manufacturer of precision replacement parts for Linotype and Intertype machines is **not** just an accident... it has been a planned achievement. For over thirty years we have endeavored to combine top quality and prompt service... we have made that our business.

Top Quality and Prompt Service

...THAT IS OUR BUSINESS

One of the reasons for the popularity of our products are the **improved** Star parts designed by us to modernize and improve the efficiency of your machines... not just keep them running. Another reason why we enjoy our present position as leaders in our field, is our prompt and efficient service... service designed to keep your machine's down time to a minimum. 97% of orders are shipped the same day they are received.

Always remember, when it's line casting machine parts you need, you'll find precision parts and prompt service at a fair price from Star Parts Inc.

Precision TRADE ★ MARK Parts

STAR PARTS, Inc.

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AGENCIES

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CANADA: STARS LTD. and Agents Overseas

you get

EXTRA ADVANTAGES

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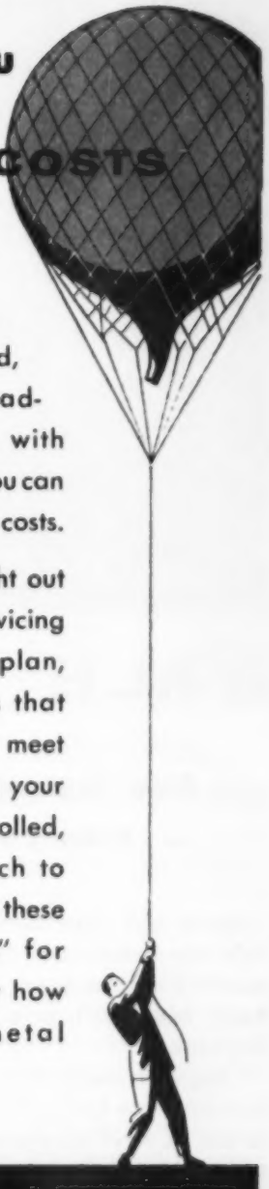
to help you hold down RISING COSTS



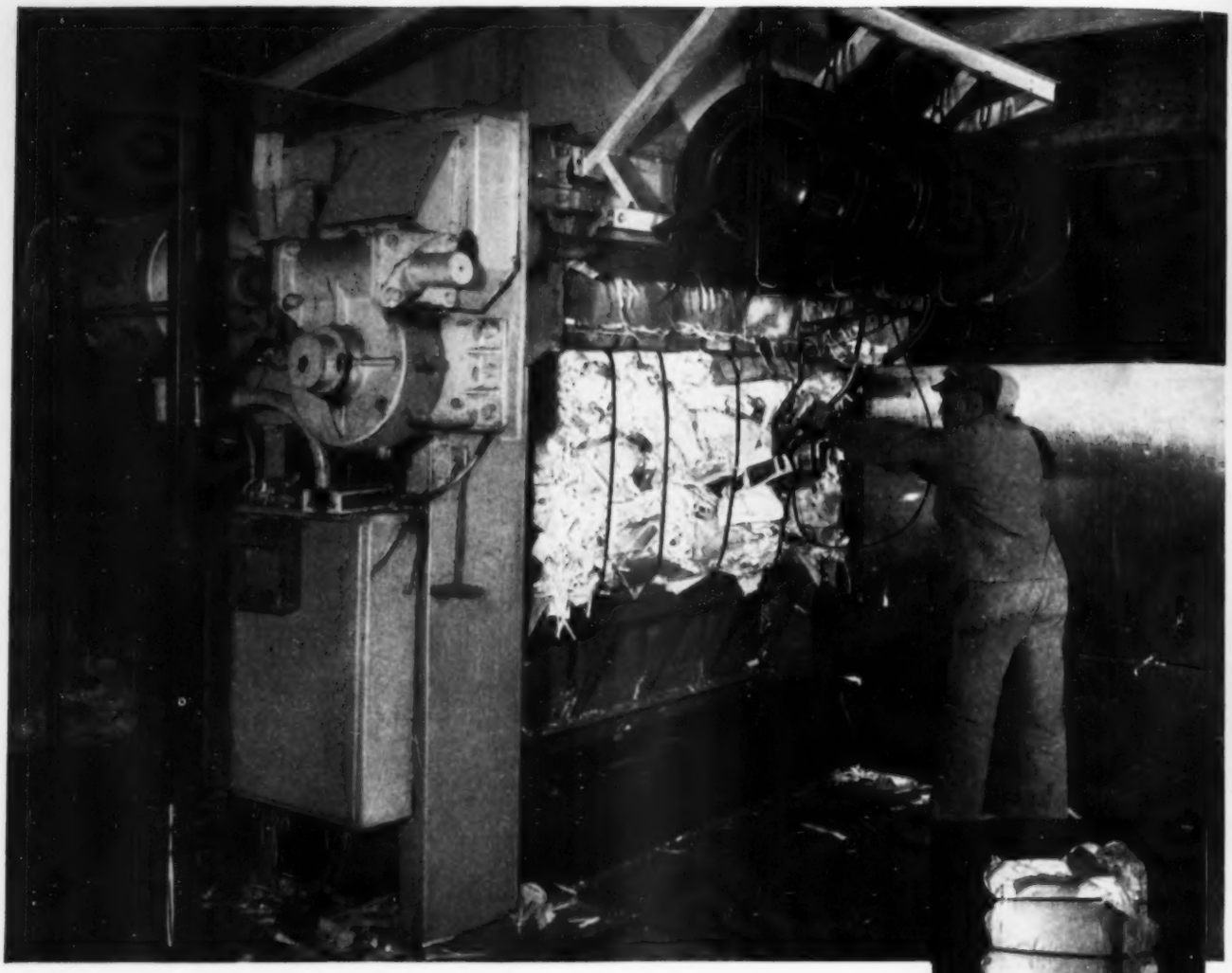
Costs are ballooning. Some can't be stopped, but with the "extra advantages" that come with Imperial type metals, you can hold down type metal costs.

Imperial, which brought out the first Type Metal Servicing and dross exchange plan, now offers economies that can definitely help you meet rising costs by putting your metal on a sound, controlled, business basis. Switch to Imperial now and get these "extra advantages" for your plant no matter how small your type metal requirements are.

IMPERIAL TYPE METAL COMPANY

Imperial

PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50



BALE WASTE PAPER?

New Signode way is faster, easier, cheaper, safer
. . . uses your present baling press!

Faster and *easier* because fewer ties are needed per bale; the inexpensive Signode setup eliminates waste motions of reaching, twisting, splicing; strapping feeds handily from conveniently located overhead dispensers.

Cheaper because bales are 29% denser, take 43% less strap per bale, save 25% of room in storage and in trucks; steel strapping stays tight, bales hold shape without bulging and wedging in transit; steel strapping itself can be unloaded from cars or trucks quickly and neatly with a lift truck.

Safer because flexible strap ends drop down, are easy to see; no sharp ends poke at man on receiving side; bales are squarer, firmer . . . safer and neater to handle, stack, load.

It's easy to change to this new method—now used by some of the biggest balers in the country. Signode fieldmen know how to adapt it to your present baling equipment . . . are ready to work with you now. If you bale waste paper or any other compressible material or product in any quantity, call the Signode man near you, or wire or write:

SIGNODE STEEL STRAPPING CO.

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Offices Coast to Coast. Foreign Subsidiaries and Distributors World-wide.
In Canada: Canadian Steel Strapping Co., Ltd., Montreal • Toronto

Precision · Production · Profits . . .

PMC Sterling Toggle Base and Hook System

permits you to improve quality, increase production and decrease operating costs.

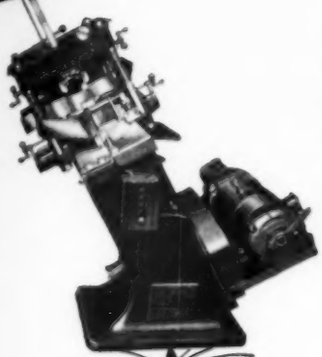
Plates are quickly positioned on rigid, precision made PMC Sterling Toggle Base. They are accurately registered and securely held by PMC Sterling Toggle Hooks.

Time required for lock-up, make-ready and register is cut substantially, resulting in less idle press time and more profitable operation.

PMC Warnock Rotary Hook System

gives you positive, precision plate mounting on *any* rotary letterpress.

Assures speedy, accurate placement of plates—measured movement of hooks for hairline register—ability to hold extremely narrow margins and irregularly shaped plates.



PMC Die Cutting Machine

handles up to 300,000 pieces per hour. It dies out labels, or cuts round corners and trims three sides in one speedy operation.

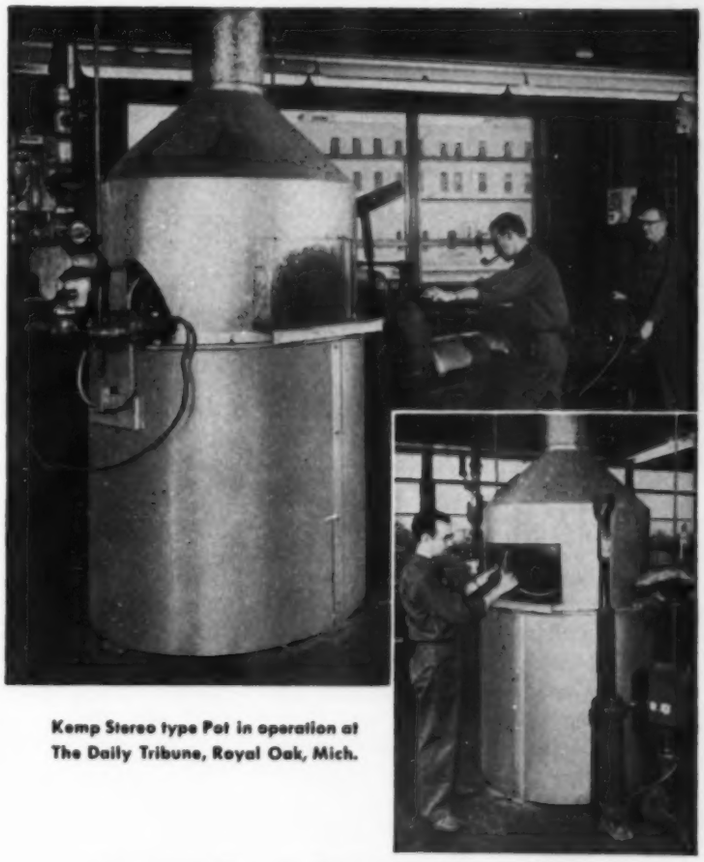
Write for additional information.

PMC

THE PRINTING MACHINERY COMPANY

436 Commercial Square
Cincinnati 2, Ohio

The Daily Tribune picks KEMP STEREO POT for dependable operation



Kemp Stereo type Pot in operation at The Daily Tribune, Royal Oak, Mich.

No pot breakage, less dross formation with Kemp equipment

Its stereo pot is a vital part of the Royal Oak, Michigan, Daily Tribune's operation. To minimize the danger of a costly breakdown, the Tribune chose a Kemp Stereo Pot.

Kemp has justified its purchase at the Tribune. Danger of pot breakage has practically been eliminated; dross formation has been reduced. And in addition, Kemp immersion heating units eliminate inefficient external burners—assure high melting rates, rapid temperature recovery after adding cold material, and save up to 40% on fuel. No wonder the Tribune, like all other Kemp users, is pleased with Kemp performance!

How can Kemp save *you* time and money? For help on any melting problems, write to Kemp today. For technical information and facts on how we can help you with your melting problems, write:

THE C. M. KEMP MFG. CO., 405 E. Oliver Street., Baltimore 2, Md.

KEMP OF BALTIMORE

IMMERSION MELTING POTS
CARBURETORS • BURNERS • FIRE CHECKS
ATMOSPHERE & INERT GAS GENERATORS
ADSORPTIVE DRYERS • SINGEING EQUIPMENT
METAL MELTING UNITS • SPECIAL EQUIPMENT

your paper may be losing hundreds of dollars on ad production

CAN YOU SPOT THE PEOPLE INVOLVED?

Unless your newspaper includes a modern dispatch room, they may all be involved. Without a dispatch room, compositors and ad department employees can waste valuable time searching for mats, cuts and signatures. With a Hamilton-equipped dispatch room, clerical help and trainees can do an efficient job of locating and processing all these ad components.

Here's how a Hamilton-equipped dispatch room manned by clerical help or trainees works. As ad copy comes to the dispatch room it is assigned a dispatch tray, which follows the ad through to completion. Required mats, cuts and signatures are easily located in indexed, dispatch filing cabinets. Stereos are then cast and added, and the tray is dispatched to the composing room. After the ad has run, reusable ad materials are returned to the dispatch room and refiled.

The fast-growing popularity of Hamilton-equipped dispatch rooms proves they produce big savings for newspapers of all sizes. You owe it to yourself to have the whole story—write for complete details now!

A dispatch room equipped with compact, modular Hamilton dispatch units. This flexible equipment can be easily adapted to newspapers of any size.

Hamilton

DISPATCH EQUIPMENT

Hamilton Manufacturing Company
Printers Equipment Division
Two Rivers, Wisconsin

Please send complete details on dispatch room equipment.

Name_____

Firm_____

Address_____

City_____ Zone____ State_____

PATENTS

For The GRAPHIC ARTS

Covering patents issued June 5, 12, 19 and 26.

All new patents for the Graphic Arts are reported exclusively for *Printing Equipment Engineer* by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred patents issued each week. *Printing Equipment Engineer* is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

ATTACHMENT FOR PRODUCTION OF PRINTERS' RULES

The attachment is for use with strip casting machinery of the Elrod, Universal and the B&M machine. The attachment obviates the need for a multiplicity of standard molds of varying designs and is adapted for interchangeably receiving separate and distinct design media to be impressed in rule bar stock. Patent 2,748,922 by Virgil C. Shidler.

TYPESETTING MACHINES

The machine is of the type which will set and justify lines of type, working on one line at a time. The line is proofed, then reproduced by any known process and the printing may be done on white or colored paper, regular or transparent. The machine will automatically redistribute the type of the line of type after it has been reproduced. Patent 2,749,132 by Blackwell K. Murchison.

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Platemaking:

METHOD AND APPARATUS FOR CASTING PRINTING PLATES

Plates without voids and soft spots are cast by a method and apparatus in which the molten backing metal which is cast behind the type shell solidifies progressively rearwardly from the shell and upwardly from the bottom of the plate so that the metal is at all times under hydrostatic pressure as it solidifies. Patent 2,748,433 by Benjamin R. Preston and Donald A. Richmond.

LITHOGRAPHIC PLATE PROCESS

The image is produced in fine grainy steel, such as low carbon steel of the low SAE 1000 series, and the non-printing or open surfaces are covered with passivated chromium which is non-porous and will not accept ink. This provides a less expensive, durable and corrosion-resistant lithographic plate. Patent 2,750,881 by Charles F. Geese, assigned to Steel Dot Corp.

PHOTOGRAPHIC METHOD OF OBTAINING A FILM TRANSPARENCY

The method is suitable for simultaneous or double photographing of any combination of relief printing surfaces with photographic halftone reproductions and/or photographic reproductions of line work so as to form a composite transparency suitable for use in the making of a press plate. Patent 2,751,294 by George L. Morrison.

PHOTOSENSITIZATION OF CINNAMIC ACID ESTERS OF CELLULOSE

A photomechanical resist composition having good storage qualities and offering wide usage in the photoengraving and photolithographing

yields is prepared by using cellulose cinnamate as a combined carrier and light-sensitive material and, as a sensitizer for the composition, a mononitroaniline compound. Patent 2,751,296 by Louis M. Minsk, Werter P. Van Deusen, and Earl M. Robertson, assigned to Eastman Kodak Co.

LIGHT-SENSITIVE POLYMERS FOR PHOTOMECHANICAL PROCESSES

The polymers are useful for forming resist images on various printing plate supports, such as aluminum, zinc, copper and magnesium. The polymer can be obtained by the esterification of a styrene-maleic anhydride copolymer with a cinnamamide such as N-(m-hydroxymethylphenyl) cinnamamide. Patent 2,751,373 by Cornelius C. Unruh and Donald A. Smith, assigned to Eastman Kodak Co.

BRUSH CLEANING DEVICE

The apparatus is designed for the vacuum removal of electrostatically adhering particles from a xerographic plate. The brush may be made of fur, Nylon, or natural fibers such as cotton, wool, hair, etc. Patent 2,751,616 by Milo I. Turner and Clyde R. Mayo, assigned to The Haloid Company.

ELECTROSTATIC CLEANING OF XEROGRAPHIC PLATES

Xerographic plates are cleaned, or the residual powder images are removed, by placing a negative electrostatic charge on the surface of the photoconductive insulating layer carrying the residual image, and rapidly brushing the surface to remove the image. Patent 2,752,271 by Lewis E. Walkup and Herbert E. Carlton, Jr., assigned to The Haloid Company.

●

Feeding, Folding, Delivery:

MACHINE FOR HANDLING CARDS AND THE LIKE

Cards or leaflets of varying sizes and thicknesses can be handled with minimum mutilation on high speed presses by means of a rotary separator disc having an opening in the center which connects with a gap in the periphery so that a corner of a card is drawn into the opening and gap and passed by rotation of the disc progressively from one side to the other. Patent 2,749,117 by Albert C. Chew, assigned to Hobson-Miller Machinery, Inc.

SHEET FEEDING MEANS FOR DUAL PURPOSE DUPLICATOR

A sensing mechanism is used to determine whether or not a sheet has been advanced for engagement by the gripping mechanism. In the absence of a sheet for the gripper, the sensing mechanism acts to throw blanket and plate-platen cylinders out of engagement to prevent offset onto the platen. Patent 2,750,882 by William W. Davidson.

AUTOMATIC RAISING MECHANISM FOR FEED TRAYS

Papers of varying thicknesses may be fed to a duplicating machine without adjustment of the feeding tray. Instead of the tray being raised with each cycle of the machine, a sensing device and jack assembly maintains the sheets at a correct feeding level. Patent 2,750,804 by Carl A. Bergman, assigned to Standard Duplicating Machines Corp.

PNEUMATIC SHEET-TAKING APPARATUS

To obviate strain on sheets being fed to a press, the ram and cylinder assembly of this apparatus is supported from a point above the sheet engaging face of its sucker, for free universal swinging movement from a datum position at least within limits corresponding to movement of the sucker from side edge towards longitudinal center of sheet and parallel to its length. Patent 2,749,119 by Alfred P. Battey, assigned to R. Hoe & Co., Inc.

STACK MECHANISM FOR BOOK COMPONENTS

The improvement applies to the book assembly machine of patent No. 2,692,136. It provides

the modern way
to order production equipment and supplies

EASTERN

The Eastern plant

is equipped and stocked to take care of most of your newspaper production requirements for equipment and supplies.

The Eastern staff

is specially trained, and has long experience in serving the needs of the finest newspapers . . . both for everyday necessities and major replacements or additions.

The Eastern Catalog

is your best and most complete guide to the products you need for Composing Room, Stereotype Department, Press Room and Photo-engraving Department.

YOU'LL SAVE TIME, MONEY AND WORRY WHEN YOU ORDER FROM EASTERN. Order from your Eastern Catalog today!

ENS EASTERN FOR ECONOMY

EASTERN
NEWSPAPER SUPPLY, INC.
96-03 NORTHERN BLVD., CORONA 68, NEW YORK

two stack mechanisms with carriers maintaining the top of the stack at predetermined level. This mechanism is arranged to facilitate withdrawal of successive components from top of stack, or to supply sheets to a transfer position, without interruption due to replenishment of the stack. Patent 2,752,153 by Carl Schramm, assigned to The Smyth Manufacturing Co.

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Printing Presses:

DOCTOR BLADE AND MOUNTING FOR GRAVURE PRESSES

Doctor blade is of thin resilient material so that it may be placed under transverse stress to automatically adapt its shearing edge to the surface of the cylinder with less pressure than is required under prior practice. Reissue 24,161 of 2,704,026 by Edmund A. Rogge and William A. Roehm.

BLOCK-CARRYING DEVICES FOR SHEET OR WEBFED ROTARY PRESSES

To avoid the idle periods now required for fitting and placing blocks of type on the cylinder of a rotary sheet or webfed press, this patent provides a sleeve on which the blocks may be fitted away from the press. The sleeve is readily slipped onto and locked in place on the press cylinder. Patent 2,748,699 by Joseph Otto Bobst.

ADJUSTABLE MOUNTING FOR PRINTING PRESS ROLLS

Ink and moisture applying rolls are mounted for pressure adjustment with respect to adjacent rolls so that adjustments can be made from outside of the press. This is accomplished by mounting inking roller in a pivoted bracket. Patent 2,750,883 by Paul H. Dietrich, Robert W. Reinartz and Oskar Morgenlander, assigned to Maschinenfabrik Augsburg-Nurnberg A. G.

PATENT SEARCHES

For Patent Research in the U.S. Patent Office, or a prompt estimate on any type of search, write INVENTION, INC. Munsey Bldg. Washington, D.C.

SELF-ADJUSTING FORM ROLL

The desired contact pressure is predetermined between the form roll and the distributor roll and plate cylinder of a rotary press and the form roll is then permitted to assume whatever position is required to provide the desired contact pressures. Adjustments are made by radial arm supports on the form roll. Patent 2,751,843 by Harry W. Faeber, assigned to Time, Incorporated.

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Binding, Cutting, Perforating:

BOOKCASE MAKING MACHINE

This machine efficiently and at great speed produces bookcases having stiff covers with back lining panels and side flaps glued on. All folding operations are done while the book-units are advanced continuously and edgewise in horizontal position along a rectilineal path. Patent 2,749,967 by Emmon Bach and Edwin W. Goodwin, assigned to Dexter Folder Co.

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Miscellaneous:

AUTOMATIC TORQUE CONTROLLER

An electromagnetic coupling is used to permit the speed of a web or a plurality of aligned strand webs being fed by a printing press to a reel to be determined solely by the rate of delivery from the press. Tension on web is thus uniform despite a fixed linear rate of travel of the web or the changing diameter of the roll on reel. Patent 2,748,299 by Robert J. Weesner and Herbert L. Kelley, assigned to The Louis Allis Co.

IRONING MACHINE FOR JACKETS OF LITHOGRAPH ROLLERS

The machine is for pressing the sewed seam portions of relatively thick fabric such as in forming tubular sleeves or jackets for moistening rollers of lithographic printing machines. Patent 2,750,689 by Jonas Theodore Lindquist, assigned to Roberts & Porter, Inc.

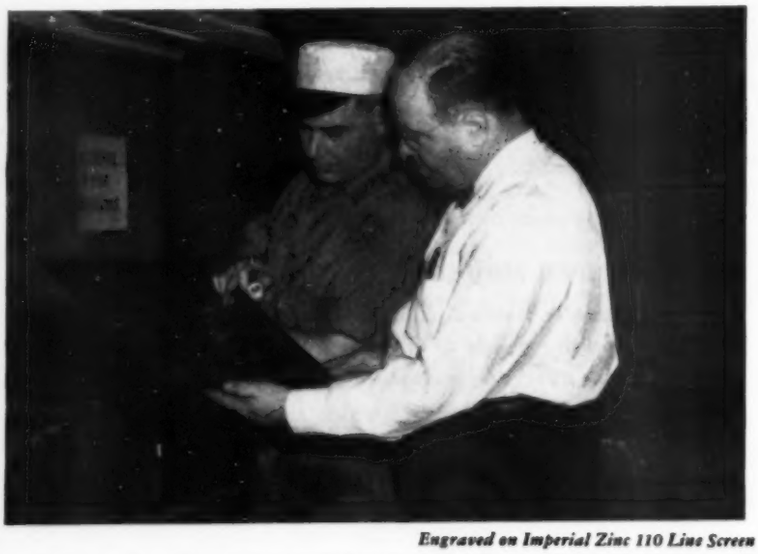
PRINTER'S BLANKET AND METHOD OF MAKING SAME

For gravure printing processes, or other processes using inks contaning organic solvents, this blanket has an outer protective layer enclosing a resilient layer. The resilient layer is formed of compounded natural rubber and the outer layer comprises synthetic rubber, carbon black, stearic acid, zinc peroxide and an olefin polysulfide reaction product. Patent 2,752,280 by Giles B. Cooke and Mordecai N. Timbs, assigned to Crown Cork & Seal Co., Inc.

PRINTING INK

An ink with inhibited misting tendencies contains suitable colors dispersed in a vehicle, which vehicle is an oil-soluble resinous binder and a mineral oil solvent. The mineral oil is non-distillable at atmospheric pressures and contains 0.1% to 3.0% of a long chain aliphatic amine bentonite. Patent 2,750,296 by Joseph G. Curado and Delbert H. Praeg, assigned to Sun Chemical Corp.

WHAT DOES YOUR ETCHER SAY ABOUT IMPERIAL ZINCS?



Engraved on Imperial Zinc 110 Line Screen

We assume he's tried them—if not, have your Imperial representative talk with your etcher for a few minutes and tell him about Imperial Regular Zinc, fine for usual jobs—Imperial Duraplate, the extra heavy duty Zinc and Vitaplate, the new, fast etching zinc alloy for the Dow Process. Get your etcher's opinion on these three Imperial Zincs that satisfy the requirements of the most discriminating etcher.

THREE QUALITY ZINCS — Imperial — DURAPLATE VITAPLATE REGULAR

IMPERIAL TYPE METAL CO.

CHICAGO 50 • NEW YORK 7 • PHILADELPHIA 34

Graphic Arts Meetings

(With Organization Name and Correspondence Officer)

American Photoengravers Assoc. — 1956 Conv., Hotel Statler, Detroit, Mich., Oct. 8-10. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Rm. 430-A, Chicago 4, Ill.

ANPA Mechanical Conf.—1957 Conf., Morrison Hotel, Chicago, June 10-12. Mgr. Richard E. Lewis, ANPA Mechanical Dept., 370 Lexington Ave., New York 17, N. Y.

Book Manufacturers' Institute—1956 Conv., The Greenbrier, White Sulphur Springs, W. Va., Oct. 11-13. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36, N. Y.

Fifth District Craftsmen's Conf. — 1957 Conf., Brown Hotel, Louisville, Ky., May 17-18. Secy.-Treas. George W. Thompson, Toledo Colortype Co., 1711 Jefferson Ave., Toledo, O.

Graphic Arts Trade Assoc. Executives—1957 Conf., Biltmore Hotel, Los Angeles, Oct. 26-27. Secy.-Treas. W. Floyd Maxwell, LNA, 420 Lexington Ave., New York 17, N. Y.

Gravure Technical Assoc.—1957 Conf., Drake Hotel, Chicago, March 6-8. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20, N. Y.

Great Lakes Newspaper Mechanical Conf.—1957 Conf., Statler Hotel, Cleveland, O., Jan. 13-15. Secy.-Treas. Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press.*

Illinois Newspaper Mechanical Conf. —1956 Conf., Wolford Hotel, Danville, Ill., Sept. 29-30. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News.*

Intl. Assoc. Electrotypers & Stereotypers—Exec. Secy. A. P. Schloegel, 701 Leader Bldg., Cleveland 14.

Intl. Assoc. of Printing House Craftsmen—1957 Conv., Statler Hotel, Buffalo, N. Y., Aug. 4-7. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19, O.

Intl. Graphic Arts Education Assoc. —Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., Washington 15, D. C.

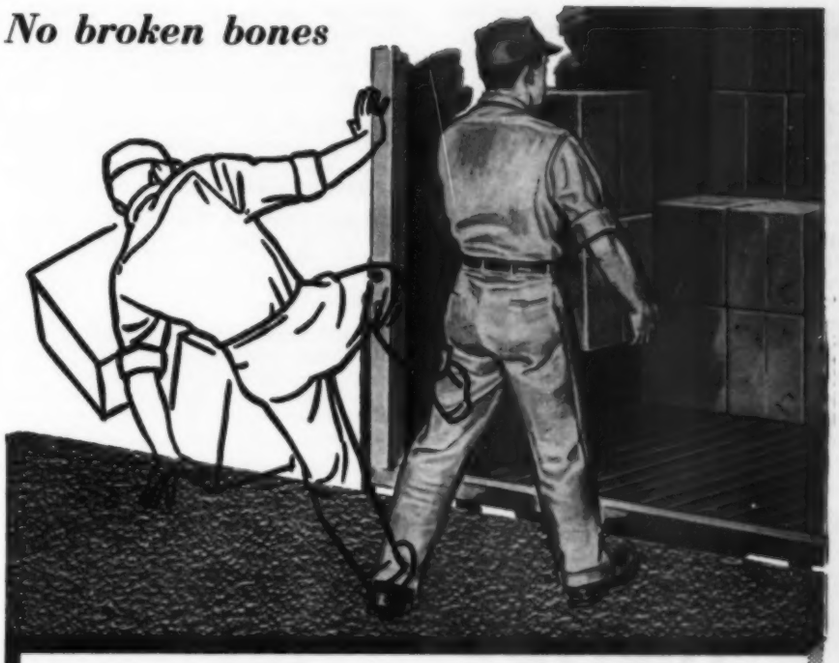
Intl. Printers Supply Salesmen's Guild—Secy. Louis A. Croplis, American Type Founders, 555 Broadway, New York 12, N. Y.

Intl. Typographic Composition Assoc.—1956 Conf., Royal York Hotel, Toronto (Ont.) Can., Oct. 10-13. Exec. Secy. Frank M. Sherman, 1015 Chestnut St., Philadelphia 7.

Iowa Daily Newspaper Mechanical Conf.—1957 Conf., Hotel Hanford, Mason City, Ia., May 4-6. Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Secy.-Treas. Larry Miller, Kansas Press Assoc., 701

No broken bones



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World's only abrasive rolled steel floor plate

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Except in accident and insurance rates!

Because neither oil, grease nor water—on flat or inclined surfaces—can reduce the powerful friction grip of ALGRIP's uniformly embedded abrasive particles.

ALGRIP's abrasive is rolled in—*not coated*—to a controlled depth as an integral part of the steel plate. Wear and tear merely expose more abrasive. ALGRIP, made by a patented process, fabricates easily—maintenance is practically nil.

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ALGRIP—*approved for safety by Underwriters' Laboratories.*

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Conshohocken, Pa.

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Company _____

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Other products: A.W. SUPER-DIAMOND Rolled Steel Floor Plate—Plates—Sheets—Strip—(Alloy and Special Grades)

Jackson St., Topeka, Kans. Missouri Secy.-Treas. William A. Bray, Missouri Press Assoc., 220 Walter Williams Hall, Columbia, Mo.

Lithographers National Assoc., Inc.—1957 Conf., The Greenbrier, White Sulphur Springs, W. Va., Apr. 1-3. Exec. Dir. W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Mid-Atlantic Newspaper Mechanical Conf.—1957 Conf., Sheraton Hotel, Philadelphia, Pa., March 21-23. Conf. Dir. Theodore A. Serrill, PNPA General Mgr., 2717 N. Front St., Harrisburg, Pa.

National Assoc. of Litho Clubs—1957 Conv., Palmer House Hotel, Chicago, May 3-4. Exec. Secy. Eugene Hanson, 4440 Bessie St., St. Louis 15, Mo.

National Assoc. of Photo-Lithographers—1956 Conv., Hotel Commodore, New York, N. Y., Sept. 19-24. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, N. Y.

National Paper Trade Assoc.—1956 Meeting, Conrad Hilton Hotel, Chicago, Ill., Sept. 17-19. Secy. J. H. Longergan, 220 E. 42 St., New York.

National Printing Equipment Assoc., Inc.—1956 Meeting, Statler Hotel, Los Angeles, Calif., Oct. 20-Nov. 1. Secy. James E. Bennet, 140 Nassau St., New York 38, N. Y.

National Safety Council Printing and Publishing Section—1956 Conf., Conrad Hilton Hotel, Chicago, Oct. 24-25. Staff Rep. Arthur Siedlecki, National Safety Council, 425 N. Michigan Ave., Chicago 11.

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PREFERRED BY
EXPERIENCED PRESSMEN
Some people think of press blankets as being stock items. Thus they never become acquainted with the many advantages of "Tingulok"—the fastest method of blanket attachment on the market.
"Tingulok" is a new development which enables your press crew to apply blankets with a minimum of downtime. The flaps and blankets are made up complete with clipper lacing — all "ready for press". "Tingulok" prevents creeping, tearing, walking or pulling off pins.
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723 E. Washington Blvd. • Los Angeles, Cal. • Richmond 9-6023
Canadian Sales Agents: ROSS WHITEHEAD & CO., LTD. Montreal, Canada

New England Composing Room Executives Assoc.—1957 Conf., Keene, N. H. Secy. Lewis R. Green, Westerly (R. I.) *Sun.*

New England Newspaper Mechanical Conf.—1956 Conf., Statler Hotel, Boston, Mass., Oct. 20-21. Secy.-Treas. Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

New York State Capital District Mechanical Conf.—Dir. Floyd Laurenty, Schenectady (N. Y.) *Union-Star.*

Northwest Mechanical Conf.—1957 Conf., Hotel St. Paul, St. Paul, Minn., Feb. 16-18. Secy.-Treas. Ralph N. Carson, Linecasting Instructor, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis, Minn.

Pacific Newspaper Mechanical Conf.—1956 Conf., Biltmore Hotel, Los Angeles, Calif., Sept. 14-16. Secy. Fred Moyer, Sr., 6630 Mayflower Ave., Bell, Calif.

Packaging Institute Assoc.—1956 Conv., Statler Hotel, Cleveland, O., Sept. 10-12. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17, N. Y.

Printing Industry of America—1956 Conf., Statler Hotel, Los Angeles, Calif., Oct. 30-Nov. 2. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Research and Engineering Council of the Graphic Arts Industry, Inc.—1957 Meeting, Ben Franklin Hotel, Philadelphia, May 15-17. Managing Dir. Robert E. Rossell, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Screen Process Printing Assoc., Intl.—1956 Conv., Sherman Hotel, Chicago, Oct. 19-21. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—Secy. John A. Hogg, Southern Newspaper Publishers Assoc., P.O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1957 Conf., Hotel Galvez, Galveston, Tex., March 10-12. Secy. Walter Johnson, jr., P.O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assoc.—1957 Conv., Battle House, Mobile, Ala., April 4-6. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assoc. of the Graphic Arts—1957 Conf., Ben Franklin Hotel, Philadelphia, May 13-15. Secy.-Treas. Phillip E. Tobias, 140 N. 6th St., Philadelphia 6, Pa.

Minneapolis Group Meets—Paul J. Ocken, general manager and vice president, Graphic Arts Industry, Inc., Minneapolis, has received a new contract with the association which runs through July 31, 1962. The action came at the semi-annual meeting of the board of directors of GAI of Minneapolis held recently. At a directors meeting of Graphic Arts Educational Foundation, Inc., held in conjunction with the GAI meeting, T. E. Flaherty, president, Knight Printing Co., Fargo, N. D., was presented a membership plaque in Beta Alpha Gamma, an honorary management engineering society.

NEWS ITEMS

GPI Chicago Clearing Plant—General Printing Ink Co., Div. of Sun Chemical Corp. recently announced consolidation of its Chicago area sales and manufacturing activities. The consolidation will be at the expanded Clearing Plant, located at 6556 S. Melvina Ave., Chicago 38.

HEINRICH

Eastern Colortype Appoints Heinrich—Kurt Heinrich has been promoted to sales manager of Eastern Colortype Corp., offset lithographers of Clifton, N. J., and New York, N. Y., it was announced by Bruce Bayne, vice president. For the past two years, Heinrich has been sales representative with the company. He was formerly associated with D'Arcy Printing and Lithographing Co. and the National Process Co.

Gardner Lab Moves—The Gardner Laboratory, Inc., recently moved into a new building located at 5521 Landy Lane, Bethesda 14, Md., which is in suburban Washington, D. C.

Golden Plover Contest—Whiting Plover Paper Co.'s letterhead competition contest winners, 12 printers and 12 distributor salesmen, will receive a Golden Plover trophy late September, plus an all-expense paid weekend at a Wisconsin resort. The Golden Plover trophy, inspired by Whiting-Plover Paper Co.'s trademark, stands 18 in. high. Its wings and body are cast from metal and bird is poised on a walnut base.

Brown & Bigelow Appointment—Hamilton E. Hayne has been promoted to vice president of sales, Brown & Bigelow, (St. Paul, Minn.) calendar and advertising specialties firm. Hayne will continue as sales manager of the Mid-Atlantic Division of Brown & Bigelow with headquarters in Philadelphia. Hayne joined the Brown & Bigelow sales force in Tulsa, Okla., in 1952 and was named sales manager at Akron, O., in 1952.

Chemco Includes Kenro Camera—The Kenro Vertical 18 Camera will be included in the Chemco Photoproducts Co.'s line of equipment. The announcement was made by Samuel Anson, Jr., general sales manager for Chemco. The camera will be displayed in the company's New York, N.Y., showroom and will be available from Chemco offices.

Paul Renner Dies—Bauer Alphabets, Inc. announced the death of Paul Renner on April 24 in Konstanz, Germany. Renner was a typographer, painter and theorist on art. He was responsible for the development of Bauer's Futura type face and Bauer's Topic type face. Renner was 78 at the time of death.

H-S Purchases Airtronics—Harris-Seybold Co. recently purchased a Washington, D. C., electronics firm, Airtronics, Incorporated. George S. Dively, chairman and president of Harris-Seybold, said that Airtronics has participated in the development of various guided missile projects for the government and that through Airtronics Harris-Seybold hopes to supplement its current research in the printing equipment field.

Advertising Agencies Consolidate—R. Ford Bentley and John W. Ladd, Chicago advertising executives, have announced the consolidation of their two advertising agencies. The new firm, Ladd, Southward & Bentley, Inc., is located at 300 W. Washington St., Chicago 6. The agency serves some 30 Graphic Arts, industrial and financial clients. Complete advertising agency service is offered, including market research and public relations. Ladd, president, treasurer and a director of the agency, former-

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Burgess Mats shrink less lengthwise for a given width shrinkage. That makes Ad Managers happy. And Burgess Mats always give you best possible reproduction. That makes everybody happy. So why not do as every Ayer Cup winner for eight straight years has done? Use Burgess Mats!

BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Supreme Tone-Tex Mats, Freeport, Illinois

Canadian Representative, R. M. Lauson & Co., Ltd., Kennedy Road, Agincourt, Ontario

BURGESS Chrome MATS

ly headed Ladd, Southward, Gordon & Donald, Inc. He is a 1933 graduate of the School of Printing at Carnegie Institute of Technology. Bentley was formerly sales development manager of the Miehle Printing Press and Mfg. Co. In 1950 he established his own advertising agency. The third principal of the consolidated agency is Charles F. Southward, vice president and director.

Carran Joins IPI Staff—J. Stanley Clark, Buffalo (N. Y.) branch manager for Interchemical Corporation, Printing Ink Div., announced that Allan C. Carran has joined the IPI Syracuse, N. Y. sales staff. Carran was formerly with the Charles Eneu Johnson Co. He is a graduate of Western Reserve University.

MALKIN

Malkin Appointed—Raymond Malkin has been appointed sales and service representative of the Lithographic Division, William C. Herrick Ink Co., Inc. Malkin, formerly press superintendent for Advertisers Offset, has been in the Litho industry for more than 20 years.

Two Egry Register Announcements—Norval Dean was elected vice president in charge of manufacturing of the Egry Register Co., Dayton, O., it was announced by Lawrence Rauh, president and general manager of the company. Dean is third vice president of the Dayton Club of Printing House Craftsmen. It was also announced by Rauh that Jack Kennedy, former sales manager, was elected vice president in charge of sales.

BLACK

Intertype Eastern District—Norman A. Black, formerly Intertype representative in New England, has been appointed assistant to the Eastern District manager of Intertype Corporation. Appointment was announced by A. T. Mann, jr., executive vice president. Prior to joining Intertype a year ago, Black was a machinist-operator with the Brockton (Mass.) *Enterprise & Times.*

Ashwells Acquire Equity Press—James and Henry Ashwell acquired full ownership of The Equity Press, Inc., New York designer-printers specializing in pharmaceutical direct mail and industrial advertising printing. Acquisition followed the retirement of Reginald B. Gillette who was president and a principal for 17 yrs. The Ashwells, sons of H. J. B. Ashwell, a New York book manufacturer and publisher, are graduates of the School of Printing Management, Carnegie Institute of Technology, and have been active in printing trade association work for the past 25 yrs. James Ashwell is new president of The Equity Press, and Henry Ashwell is vice president and treasurer.

McCALL

Heidelberg Appoints McCall—Announcement of the appointment of Joseph McCall as administrative manager for Heidelberg Eastern, Inc., has been made by Ira P. Lipson, vice president and general manager. McCall was formerly with the sales administration division of E. P. Lawson, Inc. He will now have full responsibility for the follow through of Heidelberg equipment orders from time of receipt to installation..

What Happens to Engineers—Carnegie Institute of Technology found another reason for the shortage of engineers when it surveyed 18,000 alumni now in the U. S. About 95% replied. Approx. two-thirds of the alumni, or 11,500 persons, hold degrees in engineering or science but only one-fourth of those holding such degrees, or 2391 persons, listed their occupation as engineer. Many are functioning in higher echelons of administration or management. The alumni includes graduates of the Col-

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If you need miters in either small or large quantities, no other machine nor method can turn out anywhere near as many perfect joining miters so quickly from strip material. That's how the Rouse Power Miterer can slash your printing costs by doing work in minutes that now takes you hours.

A Rouse Power Miterer won't cost you one cent! Printers the world over say that money paid for a Rouse Power Miterer quickly comes back through tremendous savings in expensive time. After getting your money back, you'll start collecting daily dividends from permanently lower operating costs.

FROM THE SMALLEST JOB SHOP UP TO THE LARGEST PLANT, ONLY ROUSE MAKES A POWER MITERER FOR EVERY TYPE OF USE.

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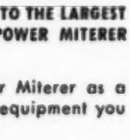

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MITERING MACHINES
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BAND SAWS

ENGINEERED for DUAL ACTION

Cast stereo printing plates and linotype ingots with this one

NOLAN **COMBINATION**
Stereo and Remelt FURNACE

DESIGNED FOR 5 STAR SAVINGS

★ **Low initial cost**

Saves ★ **TIME** ★ **LABOR** ★ **METAL** ★ **SPACE**

This Nolan Stereo Furnace is another example of Nolan engineering skills to achieve top production efficiency. Nolan time-saving features fit today's fast-moving production schedules.
Write or wire now and we'll send the man with the Nolan Plan. No cost — no obligation. Nolan custom-designs to meet your requirements.

NOLAN *Corporation*
Dept. 29, Rome, N. Y.

....BUY NOLAN- KEEP ROLLIN'...

lege of Fine Arts, the Printing Management School, and Margaret Morrison Carnegie College. Altogether they reported 1240 different occupations: 329 corporation or company presidents; 357 vice presidents; and 349 general managers.

BERGMANN

Bergmann Appointed — The Ideal Roller & Mfg. Co. recently announced appointment of Albert W. Bergmann as an additional sales representative in the Wisconsin territory. Headquarters will be in Milwaukee with Herman F. Ewell. Bergmann was formerly with the Martin Driscoll Co. and also taught printing at the Milwaukee Vocational School at night.

New York Merger—It was recently announced that Wesco Monotype and Triangle Monotype, both of New York, N. Y., have merged. Corporate name will be Wesco-Triangle, Inc. The merger was effective July 1.

Charles H. Scherb for over 30 years sales and service representative for the Wood Flong Corp., has moved his base of operation from Chicago to Denver, Colo. Scherb's new address is 2567 S. Zenobia St., Denver, Colo., and his telephone number is WEst 5-9002.

Chicago Plant Addition—Sam'l Bingham's Son Mfg. Co. announced construction of a two story addition for its Chicago plant. The first floor and basement space of the addition will be used exclusively by the Samson Offset Blanket Div. The second floor will provide the much needed space for the expanding research and development laboratories.

Benny is packed for his trip to the Printing Industry of America Convention is Los Angeles. Oct. 28 to Nov. 1. The prize statuette will be awarded to winners in the P.I.A.-Miller Self-Advertising competition. which closes Sept. 28. The lovely lady with Benny is Pat Reckhouse.

Hochuli Joins Vandercook — Henry R. Hochuli recently joined the sales force of Vandercook & Sons, Inc., Eastern office. Since 1921 Hochuli has been associated with plants in the New York, N. Y., area in various capacities from compositor to plant superintendent. He is a Craftsman and has been a member of the board of governors in the New York club for 15 years. In his new capacity, Hochuli will cover the New England states.

HOCHULI

New Haloid Ad Manager—William N. Hesketh has been appointed advertising and sales promotion manager of The Haloid Co. He succeeds the late Thomas J. Liston who died suddenly May 3.

Reliance Announcements — C. V. Gregory, manager of district sales for Reliance Electric & Engineering Co., recently announced that Rochester, N. Y., will be headquarters for the Central Western New York district sales and service. Sales offices have been opened in Dallas, Tex., in the Gulf Coast District; Youngstown, O., in the Mahoning Valley district; and in Washington, D. C. Heading these offices will be William K. Schlotterbeck for the Dallas office;

Walter L. Brehmer for the Rochester N. Y. office; Frank A. Denison for the Gulf Coast District; Frank E. Davis, the Mahoning Valley office, and Henry A. Cirbee, the Washington, D. C. office. Newly appointed sales engineers are Robert M. Linn, Syracuse, N. Y., office; Roger J. Hilarides and Richard G. Emslie, Buffalo, N. Y.; Beaumont D. Stark, Boston, Mass.; Joel G. King, jr., Atlanta, Ga.; Alfred W. Fairer, Charlotte, N. C., and Donald G. Gordon to Birmingham, Ala.

New Post at National Pub.—Appointment of Emil Shelendich to the newly-created position of composing room development engineer has been announced by Leslie Shomo, vice president and general manager, National Publishing Co., Washington, D. C. Shomo said the new position was created to determine the best methods of further increasing the company's production capacity.

Timken Appointment—C. H. McCollam, general sales manager of The Timken Roller Bearing Co.'s Steel and Tube Div., announced the appointment of Sherman R. Lyle as district manager of the Steel and Tube Div. offices in Cleveland. He replaced R. P. Donnell who became district manager of the Steel and Tube Div. New York, N. Y., territory.

Giegenback Retires—A. E. ("Gus") Giegengack, former Public Printer of the United States, has announced he will retire from full time business activities. Giegengack, who resides in Washington, D. C., has held the post of executive vice president of Army Times Publishing Co. for the past three years. He continues as president of National Graphic Arts Expositions, Inc. He served as head of the Government Printing Office from 1934 to 1948 and is a past president of Intl. Craftmen's Assoc.

Revolutionary!

THE Carlson SHELL PLATE FINISHER

● Revolutionary indeed, the Carlson Shell Plate Finisher, figuratively and actually finishes plates from the bottom up... it outlines irregular edges and makes inside mortises faster and cleaner than ever before.

The flat cast is worked face up with the specially designed cutting tool *coming up* from *underneath*. It leaves a vertical edge with no bevel or burr.

The Locating Pin, directly above cutting tool shows exactly where cutting tool will come through plate.

Outlining: Note the clean, sharp and vertical edge of the outlined plate with *all* the chips on the discarded part.

Inside Mortises: Note the clean, exact mortise with *all* the chips on the discarded part. No burr or rough edge.

Finishes Plastic Plates, fast and clean with absolutely no danger of cracking or chipping.

PRODUCTION PRODUCTS FOR GRAPHIC ARTS

Chesley F. Carlson Company

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McCAULEY

Iowa Conference Officers—At the annual meeting of the Iowa Newspaper Mechanical Conference, held in Des Moines, Ia., April 14 and 15, officers for the following year were elected. Results were William D. McCauley, Mason City (Ia.) *Globe-Gazette*, president; C. P. Lawrence, Des Moines (Ia.) *Register and Tribune*, first vice president; Roger Hospers, Iowa City (Ia.) *Press-Citizen*, second vice president, and Paul F. Kamler, Clinton (Ia.) *Herald*, reelected secretary-treasurer. It was also decided at the meeting that the 1957 conference will be held May 4 through 6 at the Hotel Hanford, Mason City, Ia. The meeting was attended by 175 executives from mechanical departments of newspapers of Iowa, Nebraska, Minnesota, Wisconsin, Missouri and Illi-

Arthur Retzke Dies—Former secretary of Ideal Roller & Mfg. Co., Arthur Retzke, passed away on July 1 at his home in Oak Park, Ill. Retzke started employment with Ideal in 1919 and had an important part in the development of the company.

NELSON

ATF Names Nelson — American Type Founders recently named Carl A. Nelson manager of its New England District Office, announced William W. Fisher, vice president in charge of sales. Nelson has been an ATF sales representative in the Boston area for 11 yrs. Prior to joining ATF, he was plant superintendent of Wellesley Press, Wellesley, Mass. Nelson is past president of the Boston Club of Printing House Craftsmen.

Color Lithography Division Formed—Technicolor Motion Picture Corp. recently announced its entry into the field of color lithography through formation of a Graphic Arts Division, as stated by Dr. Herbert T. Kalmus, president and general manager of Technicolor. The first commercial operation of the Division will occupy one floor of a newly acquired building in Burbank, Calif. and will be prepared to accept orders by July 1, 1956. Heading the Division will be Virgil P. Barta and Herbert Mor-

row, jr. Both men came to Technicolor from Rochester Institute of Technology, where Barta was head of Graphic Arts research and Morrow, research administrator. Application of recently developed techniques will enable Technicolor operation to make available relatively short run three-color lithography through a system which reduces initial expenditures ordinarily associated with producing color plates. The system will be used for color illustrations for book and trade journal publishers, advertising inserts and the like. In addition, the Division will engage in devising, perfecting and operating new printing equipment.

COXHEAD

Advertising Manager Appointed—The appointment of Ralph N. Coxhead as manager of the advertising department was announced by Adolph F. Leitner, executive vice president, Ralph C. Coxhead Corp. Coxhead is the son of the founder of the company, and grandson of the present chairman of the board, C. W. Nichols. He was formerly production manager at Coxhead.

Rundlet of Cottrell Passes—Charles T. Rundlet, 79, who was associated with The Cottrell Co. for a half century before his retirement four years ago, died on July 18 at his home in Larchmont, N. Y. Rundlet, known for his expertness on magazine rotary press principles, was headquartered at Cottrell's New York office. He was also associated with R. Hoe & Co. and Rumford Press, Concord, N. H.

nuArc Builds Addition—The nuArc Company recently started construction on an addition to its present plant located at 824 S. Western Ave., Chicago. The addition will give approx. 50% more manufacturing space. The company is looking forward to a complete new building within the next few years which will house its entire operations.

BRICKER

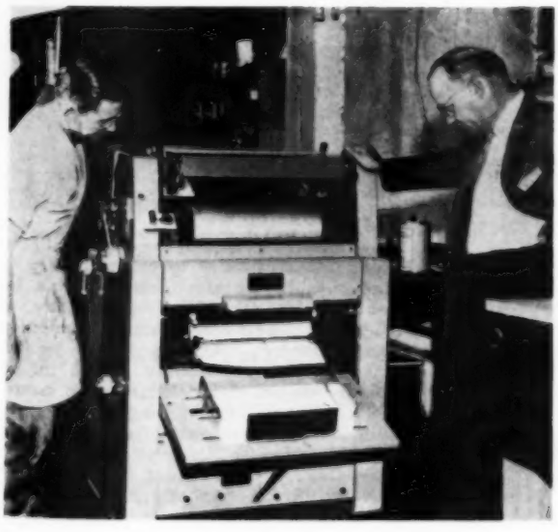
Robertson Sales Manager — The appointment of Charles R. Bricker as sales manager was announced by Robertson Photo-Mechanix, Inc. Bricker was formerly assistant sales manager in charge of branches with the Haloid Company. He is a graduate of Tulane University where he majored in Physics. The promotion of D. Thomas Kennedy, formerly sales promotion manager, to assistant sales manager was announced at the same time.

Ralph B. Tufts recently began his duties with the Onondaga Printing Co., Syracuse, N. Y. He will head the production development department and will plan, install and operate the new lithographic phase of the business. Tufts was formerly associated with General Color Printing, Inc. Rochester, N. Y., and Cornelious Printing Co., Indianapolis, Ind.

STAMBERSKY

Bingham's Detroit Appointment — J. A. Stambersky has been appointed manager of the Detroit Branch of Sam'l Bingham's Son Mfg. Co. as announced by K. E. Butler, vice president. Stambersky joined Bingham's Detroit factory in 1933 and has been in sales since 1940.

IPI Sales and Service Location—C. Stanley Johnson, Central District manager for Interchemical Corporation, Printing Ink Div., reports an IPI sales and service location has been opened in Pittsburgh, Pa. Robert G. Pender, resident IPI salesman in Pittsburgh for the past three years, heads the operation. The building is located at 1517 W. Liberty Ave. According to Johnson, the office will soon be replaced by enlarged quarters.



Lithoprint for Atlanta Firm — Keelin Printing Co., Atlanta, Ga., recently expanded its commercial work facilities with the installation of a Miehle 17 Lithoprint. This is the first offset press for Keelin. John Ennis, owner of the firm, indicated that plans are being made to establish a complete offset department giving them a combination shop. Pictured watching the Lithoprint, manufactured by Miehle Printing Press & Mfg. Co., are (left to right) T. B. Taylor, pressman, and Ennis.

Filmotype's "Pays-for-Itself" Plan Really Does!

"With the Filmotype Photo Composition Machine, we offer finest professional quality lettering and display type to attract more business . . . and it does!"
says Hans Henkel,
Vis-O-Graphic Printing Co., Chicago, Illinois

Mr. Henkel's success with Filmotype is repeated hundreds of times in both small and large printing plants. And with the unique "Pays-For-Itself" Plan, you can use a Filmotype, the most popular photo composition machine in America—without investment!

Filmotype is easy to use! Produces headings usually costing dollars for pennies!

- Over 1,000 styles and sizes of lettering and type to choose from
- Almost instantly, anyone can produce sharp, black proofs ready for paste-up
- Desk-top size . . . fits on any table . . . no special facilities needed

Get Complete Details . . . Mail this Coupon Today!

The FILMOTYPE Corporation
60 W. Superior
Chicago 10, Illinois

☐ Send information about the "Pays-For-Itself" Plan and the Filmotype Photo Composition Machine.

☐ Have your representative give me a demonstration right in my own office. I understand there is no obligation.

NAME_____

FIRM_____

ADDRESS_____

CITY_____ ZONE____ STATE_____

Literature

(Continued from Page 12)

proper use. One data sheet is descriptive of Excellopake 400 X-Tra Ink for Cellophanes (except Saran-coated), treated polyethylene, foil, glassine and papers. The second sheet is descriptive of Thermofast Ink, a heat resistant ink for semi-moistureproof and moistureproof Cellophanes, glassine and other hard surface stocks. The third deals with Acetopake Ink, a pigmented ink for flexographic or gravure printing of cellulose acetate, cellulose acetate-butyrate and cellulose tri-acetate films. For a copy, please mention PEE No. 225L in your request.

Miscellaneous

WELDING CATALOG

Modern Engineering Co. announced the 1956 revision of its No. 150 General Welding Catalog. Covered in the publication is the company's complete line of oxy-acetylene welding and cutting torches, machine cutting torches, regulators, pressure gauges, hose connections, couplings and safety equipment. For a copy, please mention PEE No. 229L in your request.

COMBINATION SHOP

A six page folder, *Today It Takes Two*, has been published by Miehle Printing Press & Mfg. Co. The folder is descriptive of advantages of a combination offset and letterpress shop. The folder is printed one side by letterpress and one side by offset. A flap printed by letterpress is turned down on the folder which may be used to compare the same subject printed in offset in the center of the folder. Both Miehle offset and letterpress are described along with illustrations and specifications. The four sections of the color subject show the printing progression of four color process reproduction. For a copy, please mention PEE No. 230L in your request.

PAPER HANDLING

A case history on savings made in unloading skid of paper at a Washington, D. C. printing plant has been released by The Raymond Corporation. The User's Report is descriptive of the plant's use of a Portadock in unloading skids from delivery trucks to sidewalk level. Included in the four page report the problem and solution, how the system works and the results are presented. The system is described in a series of illustrations. For further details, please mention PEE No. 231L in your request.

ELECTRIC FORK TRUCK

Model F-45T3 3000 lb. capacity electric powered fork truck is illustrated and described in a four page folder released by The Elwell-Parker Electric Co. Truck features roller mounted inner uprights and elevator carriage, operator's protective cowl, automative type controls, packaged unit assemblies, low hydraulic pressure, contactor controls, center sill frame and worm drive. In the folder design specifications with specification drawings are included. Application and design information is listed. Nearly a dozen illustrations of operating views and principal product components are also included. For a copy, please mention PEE No. 232L in your request.

STEEL FLOOR PLATE

Acme Steel Floor Plate for reinforcement of new or old floors is described in a four page folder published by Acme Steel Co. The material consists of an 11¾ in. square plate of 0.068 in. hot rolled steel, multi-pronged for installation in concrete topping. Included in the folder are simple instructions and illustrations. For a copy, please mention PEE No. 233L in your request.

TYPEWRITER TABULATION

A simplified method for typewriter tabulation is described in a brochure published by Remington Rand. Adapted from the book, *Typing Simplified*, five steps for obtaining perfectly centered tabulation without complicated arithmetical calculations is outlined in the brochure. Using a Remington typewriter with position scale with zero center enables the user to eliminate two of the five steps. For a copy, please mention PEE No. 234L in your request.

STAUDE PACKAGING MACHINES

The Staude line of machinery for packaging industry applications is the subject of a 6-page, 9 in. by 11 in., two-color folder. Illustrated and described are the Staude Master gluing machine, the Staude Gladiator window applicator, the Aristocrat gluer, the Sterling envelope maker, the partition slotter, the rotary dewaxer, the Alpha and Beta wrapping machines and other pieces of packaging equipment. Capacities of most units are given. For a copy, please mention PEE No. 235L in your request.

ONE SHOT LUBRICATORS

The built-in One-Shot lubricating system is the subject of a two page, two color service instruction sheet offered by Bijur Lubricating Corp. Designated Type KI, the lubricator is a spring discharge piston pump mounted in a reservoir on the machine. Sections of the sheet are used to discuss operation of the lubricators, maintenance service, starting a new machine, and types of oil to be used. The pump and components are illustrated. Types of Bijur Meter-Units are also illustrated and four tables give specification details. For a copy, please mention PEE No. 236L in your request.

CUTTER-CREASER EQUIPMENT

A description of roll fed cutter-creaser equipment, including detailed operating instructions and descriptions of all components, is included in a 44 page book prepared by Champlain Company. In the booklet is included a discussion of the history, features and types of roll fed cutter-creaser equipment available to the carton manufacturer. Design and operation of individual components are presented in the booklet. Types of dies and recommended uses are given. Contained in the booklet are 29 illustrations and drawings of complete presses as well as individual components. Also included are typical die layouts, examples of properly cut and creased cartons

take the GUESS out of buying Press Lubricants!

PLAY SAFE BY SPECIFYING . . .

ALBANY LUBRICANTS

for new equipment . . . for older equipment

ALBANY TALLOW LUBRICANTS ARE THREE TIMES AS EFFECTIVE AS ORDINARY LUBRICANTS.

- ALBANY GREASE NO. 3 . . . for presses equipped with grease cups.
- ALBANY SOFT PRESSURE GREASE . . . for presses equipped with pressure fittings.
- ALBANY VISCOUS PRESS OIL . . . for oil-lubricated presses.
- ALBANY LUBRICANT NO. 93 . . . for gears, cams, chain drives on all types of presses.

Write Today for Service Bulletin No. 10

ADAM COOK'S SONS. INC.
Mfrs. of Lubricating Products since 1868 LINDEN, NEW JERSEY

PIA Contest Deadline—Nancy Shortreed turns military to call attention to the rapidly approaching deadline for entries for the Printing Industry of America Self-Advertising Exhibition and Awards. Other points to remember: Mount entries on 13 in. by 20 in. sheets of black paper or board. Fill in complete information on entry blanks. Be sure all the material is eligible. Mail to Miller Printing Machinery Co., 1101 Reedsale St., Pittsburgh 33, Pa., by 5 p.m., Sept. 28. Winners each receive a Benny and cash award.

1956 MODELS BREAKING ALL RECORDS

Profit records for YOU . . .

NEW FEATURES

greatest advance in Folder history

. . . doubling your net profits . . . for instance,

2 folded signatures (from a single sheet fed into Folder) now come out where one came out before—of course in 1 automatic operation. And . . . from a single sheet fed into the Folder—you can have two separate sheets collated and folded together . . . of course in 1 automatic operation.

Thanks to you for ordering $50,000,000. of BAUMFOLDERS, volume production keeps prices down . . . even in these days of high labor costs and high material costs, you can still install a 17½ x 22½ Automatic Bindery complete in one compact life-time "Gold-Mine" . . . that folds; cuts; scores; perforates; collates, etc., etc. for only $85. initial and $47. a month. It will pay-for-itself many times over before you pay for it. No finance charge . . . just simple interest. And other sizes comparable pay-for-itself terms . . . 14 x 20" or 22 x 28" or 25 x 38" or 31 x 46-60".

RUSSELL ERNEST BAUM, INC.

615 Chestnut St., Phila. (6) Pa.

P.S. Someone said,—"he benefits humanity who makes 2 blades of grass grow where one grew before."

PRESSROOM TIME SAVERS!

"CAPCO" REWINDER . . . Let a CAPCO Rewinder help save you newsprint.

IMPROVED "CAPCO" PORTABLE INK FOUNTAIN . . . Provides color efficiently, in a matter of minutes. Tried, proved and guaranteed. Over **500 in use** in over **200 newspapers.** Weight—approx. 30 lbs.

"CAPCO" FACE-O-TYPE . . . A machine that mechanically reproduces an engraved type screen pattern! Cuts page costs and speeds production.

"CAPCO" PLATE GAUGE . . . New lightweight gauge is designed for checking the thickness of Standard stereotype plates, tubular and flat plates. Easier to use—greater savings.

"CAPCO" MULTI-CORE STRIPPER . . . A machine ENGINEERED to strip cores. Increases production as much as 400%. Many savings—will pay for itself out of savings.

Write Today for Complete Details

CAPITAL TOOL & MANUFACTURING CO.
5000 Calvert Road **Union 4-7677**
College Park, Maryland

and change gear specification tables. For a copy, please mention PEE No. 237L in your request.

EMPLOYMENT AGENCIES

An eight page bulletin concerning the use of employment agencies has been compiled by Graphic Arts Employment Service. The bulletin is a condensation of an article from *Changing Times*, the Kiplinger magazine. Useful information is included such as How to pick a good agency, How much should you pay, and How to get the most for your money, is included. For a copy, please mention PEE No. 238L in your request.

LIST REPRODUCTION

A four page, two color folder descriptive of Acme Visible photo panels and xerography was released by The Haloid Company. The xerography copying process is used in the preparation and alteration of price and parts lists, directories and indexes, for Acme Visible photo panels. The photo panels consist of overlapping typewritten cards arranged in order on a panel for copying by xerography. A pictorial description of the method is also included in the folder. For a copy, please mention PEE No. 239L in your request.

EQUIPMENT CATALOG

Midwest Publishers Supply Co. announced its No. 6 Catalog of stereotype, pressroom, composing room and engraving room equipment and supplies. The catalog marks the company''s tenth year as a supplier. Contained in the 40 page catalog of supplies and equipment are prices and illustrations. For a copy, please mention PEE No. 240L in your request.

INK CONDITIONER AND VARNISH

Four bulletins issued by Central Compounding Co. are descriptive of the company's ink conditioners and overprint varnish. Quickset ink conditioner is recommended by Central for offset and letterpress work and turn printing without danger of crystallization, sticking and heating. For preventing too rapid drying of gloss inks and overprint varnish on the press, 33 and 0-33 ink conditioners are suggested by Central. Glazcote ink conditioner, also for letterpress and offset use, produces a tough, scuff-resistant finish, claims the company. Another scuff-proof product is 20/20 overprint varnish which Central says is non-yellowing, non-crystallizing. Please mention PEE No. 241 when requesting these bulletins.

HYDRAULIC CLAMP CUTTERS

The Lawson Series V-65 Hydraulic Clamp Cutters are described in a two-color, 8½ in. by 11 in. brochure published by the E. P. Lawson Co. The well-illustrated, 10-page folder treats the 46 in., 52 in., and 55 in. models and the model 55-T-77, which is equipped with a 77 in. black table. One page is devoted to floor plan measurements and machine specifications. For a copy, please mention PEE No. 242L in your request.

"No, no, stupid, I said to dump that dead type and slugs in the hell box!"

BOOKS

Second Printing

The second printing of *Printing is a Business* has been produced entirely by offset press work and cold composition. Four different methods of composition were utilized; Photon, Justowriter, Fotosetter and Varityper. *Printing is a Business* is available in paper cover $2.50, cloth bound $4.50. J. W. Rockefeller, Jr. & Associates, 56 Main St., Millburn, N. J.

Penrose Annual

Breath-taking might be the proper adjective chosen by a printer in examining from a typographic point of view *The Penrose Annual*, Volume 50. There is need, also for a similar adjective to describe the book's contents. R. B. Fishenden, editor of the volume, in his editoral commentary, says *The Penrose Annual* aims are "to interest designers in technical procedure, and equally to interest printers and reproducers in the creative side of their crafts."

Thus, the book is divided into general and technical articles written by top authorities in the Graphic Arts. General subject material includes

stories on book illustrations, typographic legibility, lettering for advertising messages, music type and color photography. The technical section includes articles on the process camera, Autoscreen halftones, halftone color masking, Fairchild Scan-a-Sizer, Electrofax process, photocomposition of Chinese characters, applications of Xerography, paper conditioning, fountain solutions and ink, and bookbinding materials.

Supplementing the 154 pages of text are handsomely printed illustrations which are interspersed with the subject matter and in separate sections at the end. Because the book is published in England, it is naturally predominently British in nature but at the same time includes a number of processes and illustrations originating in this country.

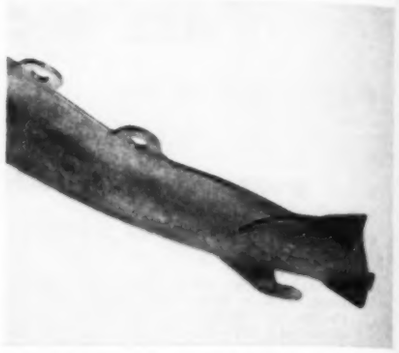
The Penrose Annual, Volume 50, a review of the Graphic Arts; size 8 in. by 11 in.; contains 154 text pages plus numerous illustrations and inserted material; yellow cloth cover with red and gold stamping. It may be ordered from Visual Design Publications, Hastings House, Publishers, 41 E. 50th St., New York 22, N. Y., for $8.50 per copy.

Electronics Data Handbook

Allied Radio Corp. announces release of a 64 page Electronics Data Handbook consisting of a selected collection of most-often needed formulas and data used in radio and industrial electronics. In the printing field, this book, in addition to its other uses, is a reliable guide for the service engineer and maintenance man in Graphic Arts plants employing electronic equipment. Formulas include basic circuit analysis, transmission line calculations, determination of vacuum tube characteristics, resonance calculations, meter calculations, etc. This information has been compiled from authoritative text books and reference works. It is presented in an organized, easy-to-find form. Prepared by the Publications Div. of Allied Radio, under the direction of Eugene Carrington, the book was edited by Nelson M. Cooke, Lieut. Commander, U. S. Navy (Ret.). The book is available from Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill., and is priced at 35c postpaid. Stock number is 37K398.

Thick and Thin Matrices Now Pass Freely Through Channel Entrance—Vern L. Trumbo, Machinist with the Clinton (Ia.) *Herald*, reports overcoming an aggravating distributor problem on a Model 8 single distributor Linotype in the *Herald* composing room. In one machine, 34 pt. Erbar and 7 pt. Ionic matrices are used. The lugs for the Erbar lower case *m* matrix are located approx. in the center of the matrix body. As will be readily understood, there is a considerable difference in the set-width of the lower case *m* matrices for the 34 pt. and the 7 pt. matrices. Thus, when the distributor channel entrance partition was adjusted to permit the 34 pt. matrix to slide freely into the magazine, the 7 pt. lower case *m* matrix would impinge against the magazine entrance plate channel partition between the *m* and *f* channels. A compromise adjustment could not be obtained.

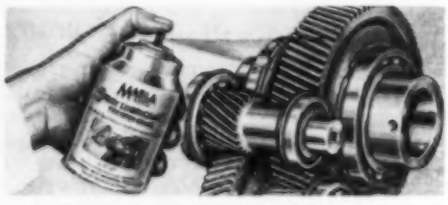
Trumbo eliminated the trouble by cutting the lower end of a spare



channel entrance partition as shown in the accompanying illustration. The position of the partition section at the lower end of which the right angle guide lugs are located was reversed from that of normal position. The section was then soldered to the lower end of the normal lower case *m* partition. The lugs on the extra piece were dressed down slightly to permit the 34 pt. matrix to slide freely into the magazine. The guide lugs on the added partition piece also project into the channel sufficiently to allow 7 pt. lower case *m* matrices to slide into the magazine smoothly.

MARLA

OPEN GEAR SPRAY LUBRICANT



Use on all Gears not running in Oil

Absolutely Nothing Else Like It!

OUTLASTS ORDINARY LUBES 5-to-1

Sticks to Metal

1. **ECONOMICAL**—Spray container reduces lubrication time. Long lasting film. One can covers approximately 25 sq. ft. of surface with no waste.
2. **HEAVY DUTY**—The finest extreme pressure adhesive lubricant there is for open gears.
3. **EASY-TO-USE**—No fuss . . . no muss. Ease of application encourages and assures complete lubrication of open gears.
4. **CLEAN**—No drip . . . no throw off . . . no clean up of excess lubricant. Will not drip in hot or steamy areas.
5. **SPRAY**—Assures perfect lubrication even to the most hard-to-get-at areas.
6. **HANDY**—Marla Spray Lubricant can be carried easily and is always ready for use. Eliminates the brush, paddle or any pre-heating.
7. **VERSATILE**—A superior lubricant also for cams, reciprocating actions, mono rails, guides, chains, sprockets and cables.

Prices F.O.B. Your Plant (U.S.A. and Possessions)

Case of Six—12-ounce Cans . . $10.74 *Case of Twelve*—12-ounce Cans . . $21.00

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THE ACME one bite ETCHER

FASTER

Halftones etched in just 5 minutes, line and combination – from negative to finished plate–in 15-20 minutes.

BETTER

Halftones etched to a depth of .006", line and combination to .040" and the process stops automatically. Side walls are coated with a resist . . . there is no undercutting.

CHEAPER

Costly, time-consuming 4-way powdering, heating and cooling are eliminated. The plate is made in one operation.

HERE'S HOW IT WORKS

The Acme One-Bite Etching process is simple. The negative is printed on an Acme Z-M (Zinc coated magnesium) plate in the conventional manner. Unexposed zinc is removed in two minutes with dilute nitric acid. The prepared plate is then fastened to the lid of the Acme One-Bite Etcher. Five to twenty minutes later the completed plate is removed ready to be cleaned, dried and used. That's all there is to it.

ACME TELECTRONIX

DIVISION OF NEA SERVICE, INC.

1200 West Third Street Cleveland 13, Ohio

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SAWS • ROUTERS • MORTISERS

Stereotype Saws
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Routers
Tubular or Semi

Flat Plate
Routers
Three Sizes

Plate Mortisers
Bench or
Pedestal
Models

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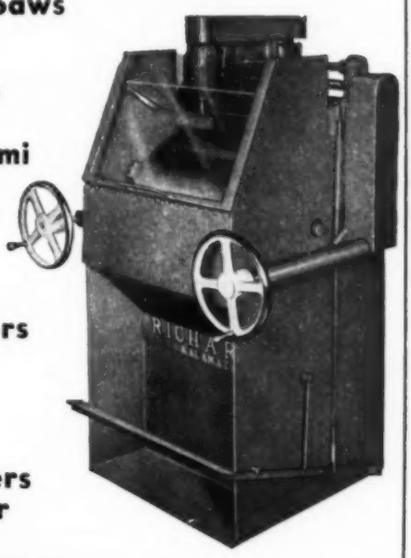
Built To Order



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RICHARDS COMPANY
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ALL OVER THE WORLD

In mat quality, the difference between "good" and "better" is subtle indeed but it becomes *More Noticeable* when you decide to use Wood Dry Mats.

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CORPORATION
HOOSICK FALLS, N. Y.

WOOD DRY MATS
ALWAYS UNIFORM

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Equipment Sales and Installations

Reports

Miehle Installations

The Miehle Printing Press & Mfg. Co. announces recent installations as follows: A Miehle # 29 Offset at Lee Lithographic Corp., Chicago; a Miehle No. 29 Offset at The General Printing Corp., Ft. Wayne, Indiana; a Miehle No. 76 Four color Offset at Harrison and Smith Co., Minneapolis, Minn.; a Miehle No. 76 One color Offset at Waldamar Press Inc., Indianapolis, Ind.

Miehle No. 17 Lithoprint Installations are as follows: The Fred Hansen Co., Inc., Los Angeles; Cornelius Service Bureau, Inc., Silver Springs, Md.; Rialto Service Bureau, Inc., New York, N. Y.; Tomlinson Vocational School, St. Petersburg, Fla.; Chester F. Floenor, Denver, Colo.; Milwaukee Label & Seal Co., Milwaukee, Wis.; Ace Letter Service, Newark, N. J.; Office Service Co., Pottstown, Pa.; B & R Printing Co., Inc., Cleveland; Quality Printing Co., Alma, Mich.; Gordon Press, Los Angeles; Woodward & Lathrop, Washington, D. C.; Simmons-Sisler Co., Inc., St. Louis, Mo.; John S. Stark Printing Co., Inc., St. Louis, Mo.; Old News Printery, Holland, Mich.; The Kent Printing Co., Grand Rapids, Mich.; Olean *News*, Olean, N. Y.; International Business Machines Corp., Poughkeepsie, N. Y.; Midwest Printing Co., Chicago; Lloyd Ruedy, Inc., Los Angeles; Craftool Publishing Co., Los Angeles; Letterhead & Check Corp. of America, St. Louis, Mo.; Coner's Printing Shop, Oroville, Calif.; Scholastic Magazines, New York, N. Y.; Battenburg Press, Norman, Okla.; Superior Printing Co., Chicago; Acme-Kingston Printing Co., Atlanta, Ga.; Wogrin, Westcott, and Free, Inc., Denver, Colo.; Waller Printing Co., Atlanta, Ga.; Keystone Press, Atlanta, Ga.; Bowlby Press, Lynn, Mass.; Lund Press, Inc., Minneapolis, Minn.; Kansas State Printer, Topeka, Kan.

G.-E. Installation

An electronic printing press drive powered by nine 40 h.p. d.c. motors has permitted the Peoria (Ill.) *Journal Star* to boost its capacity 25%, providing extensive run-of-press color printing. The General Electric drive system, operated from push button stations located at the press, is being used to power a new Goss Headliner press. The new press and the electronic drive, *Journal Star* officials said, have reduced overtime on color preparation and operation, are saving time and money by automatic pasters, and are producing larger editions in shorter operating time.

•

Hoe Installation

A half million dollar contract for a Hoe color convertible press and accessories recently was signed by Ben H. Potter, co-publisher of the Rock Island (Ill.) *Argus*. The four color equipment for the 105 yr. old newspaper is scheduled for delivery in early 1957. *Argus* officials announced that a building addition was under way to help house the press units. Capable of printing four different colors across the web on one sheet, the projected equipment will have a capacity of 80 pages, a max. run of 52,000 papers an hour and a weight of 125 T. complete. Total overall length of the two level installation will be 54 ft. and the height, 22 ft. The Hoe equipment will be equipped with two type and impression cylinders per press unit. Three type cylinders are slated for the color unit. The completed equipment will be shipped in five units ready for final assembly.

•

Linotype Type Installation

The Sault Ste. Marie (Mich.) *Evening News* recently changed from 7½ pt. Ideal to 8 pt. Linotype Corona. Despite its larger size, Corona has a shorter alphabet length which permitted the paper to reduce its column measure from 12 to 11.6 picas. This narrower measure is expected to save about 20 T. of newsprint per year. With its Corona body dress, the *Evening-News* uses Linotype Bodoni Bold for heads, and 5½ pt. Linotype Ionic for classified. Publisher George A. Osborn said, "We are proud that the whole change was made on schedule by our own employees. The work in the composing room was directed by Composing Room Superintendent Wheeler Batdorff and Walter Kemp, his assistant, Press Foreman F. C. Stephenson directed the stereo and press changes."

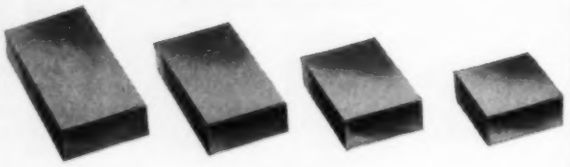
Cylinder Press

(Continued from Page 49)

running against the fountain roll sometimes has to be set tight and it can generate as much as 150 deg. temperature in the ink at high speeds. With the brush inker, the fountain runs more open and the ink remains at room temperature. With the modern evaporative type heat-set inks this is an advantage. We have units working on color ink fountains where as many as 12 different colors are used across the width of the press.

We are contemplating the design and manufacture of an all-size web press built along the lines of the McCall press already mentioned. Such a press would permit cutoffs varying in ½ in. steps over a 10 in. range. This sort of thing is, of course, now done in rotogravure and letterpress. If it succeeds in

MAGNESIUM BASE



●The ideal newspaper base. One sixth the weight of old-style base. Durable and easy to handle. Precision finished to .001″ in height. Available in all heights and sizes. Larger sizes make perfect, light-weight proof press beds and molding slabs. Inexpensive, too.

WRITE FOR NEW PRICES Free descriptive bulletin and prices sent promptly.

THE MONOMELT COMPANY, INC.
1611 N.E. Polk, Minneapolis 13, Minnesota

New book *Color By Overprinting* enables printers to increase color work.

COLOR by Overprinting

By Donald E. Cooke

A guidebook in the art and printing techniques employing transparent inks in multiple combinations enables printers to get their share of increased color printing. It is a definitive work about solid-color overprinting with transparent inks and is one of the most complete texts ever written about multicolor line reproduction and pre-separated artwork.

The method is implemented with standard printing plates on standard presses by letterpress, offset, gravure and silk screen with your present equipment.

Color By Overprinting consists of 268 pages, sizes 8½ in. by 11 in.; 44 pages of illustrations; 165 pages of color charts with keyed numbers of inks employed to secure colors from 11 basic colors and black. Substantially hard bound. The text is fully annotated for artists, printers, engravers, art directors and editors in the book, magazine, packaging and Graphic Arts fields generally.

Price, **$25.25** per copy postpaid.
(Please send remittance with order.)

Printing Equipment Engineer
1276 West Third St. Cleveland 13, Ohio

an all size offset unit, it may be somewhat expensive, but the quick change potential of this press allowing six to seven different four color jobs and considerable production in an 8 hr. shift should make it a desirable addition to the tools available to the printer.

Optimistic About Common Impression Cylinder

In general, we are optimistic about the future of the common impression cylinder press in web offset printing. We believe that in the near future it will be usable for almost any kind of printing. Most types of paper will be usable in the process. When I say most types, let's consider newsprint. I think that probably four out of five makes of newsprint will run today. Similarly, two out of three makes of book paper will run. The same thing applies to coated paper. There are some papers that have a very loose coating and react badly to water. These won't run. I think the day is rapidly approaching when it will be possible to run a web offset press at speeds in exess of 1500 f. p. m. without considering the washup of the blankets more than once a shift. I believe that it is possible today, using chrome coated Aller plates, to run 1,000,000 impressions without losing definition.

Baltimore Office for Harris-Seybold—Harris-Seybold Company recently opened a sales and service office in Baltimore, Md., according to an announcement by Herbert A. Asten, Philadelphia District manager. The Baltimore Office, part of the Philadelphia District, is located at 511 N. Charles St., Baltimore 1, Md. It is staffed by John Heilmann and Brendan O'Donnell, sales representatives, and service representative Mickey

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TROLLEY'S THE THING!

●Wrap-ups due to web breaks in long folder and color leads are hard to prevent, that is, if you don't have COOKSEY SYSTEM TROLLEYS.

Investigate the Cooksey System Today

KORTHE ENGINEERING CO.
9353 Seymour Ave. Schiller Park, Illinois

Sales Agents { The Goss Printing Press Co., Chicago
R. Hoe & Co., New York
Wood Newspaper Machinery Co., New York

OUR BLANKETS ARE KNOWN, SOLD AND USED ALL OVER THE WORLD
"NEW ENGLAND" The Oldest Name in Press Blankets
NEW ENGLAND NEWSPAPER SUPPLY CO.
Consolidated with
NEW ENGLAND FIBRE BLANKET COMPANY
164 FREMONT STREET • WORCESTER, MASSACHUSETTS
GARDENER G. DeMALLIE, General Manager
NEW YORK OFFICE
CHICAGO OFFICE
SOUTHWEST OFFICE
WEST COAST OFFICE

"Just what we were talking about and it looks adorable!"

People don't get excited about dull looking ads. In fact the eye wanders across their grayish surfaces without realizing, perhaps, that a wanted item is being mentioned.

It takes sparkling production to get the most out of advertising, whatever may be the skill of the men who describe and picture needed merchandise. Certified Mats are a recognized aid in making ads expressive and productive.

For dependable stereotyping, rely on Certified Mats

Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 555 Fifth Avenue, Dept. M, New York 17, N. Y.

Equipment & Supplies

(Continued from Page 60)

trotype, but is about 75% lighter in weight.

According to reports, printers operating a variety of letterpress equipment from job presses to five-color rotaries have used the plates under normal production conditions and found them entirely successful. Applications have included manifold, carton, 133-line screen label, book and publication work. They cannot be used where remolding is necessary.

Electroplastic plates may be mounted on standard blocking materials. Johnson claims they are resistant to cleaning solutions and for long runs, may be nickel or chrome plated. An average 7 in. by 10 in. Electroplastic plate weighs 1 lb., 15 oz. Further information may be obtained by mentioning PEE No. 224 in your request.

Black India Ink Pen

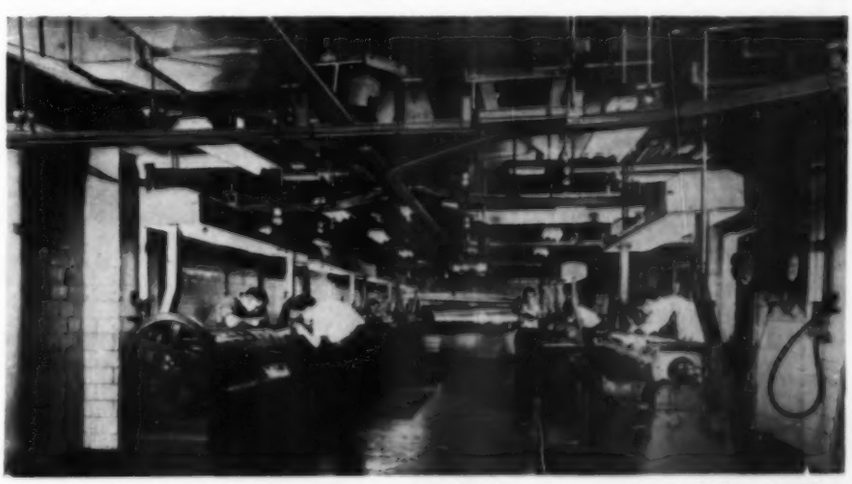
Samuel Taubman & Co. offers a ball point pen which writes in black India ink. The ink, claims the sponsor, is indelible, waterproof, instant drying; won't smear, won't run and won't corrode. Among its uses are for writing on direct image offset paper plates and Diazo sensitized facsimile paper. Please mention PEE No. 230 for more details.

Overhead Tramrail System

Handling of heavy rotogravure cylinders is accomplished at the Toronto (Can.) *Star* on an overhead Tramrail track and switch system devised by Cleveland Crane & Engineering Co.

The Tramrail serves nine etching stands in the roto etching room and lay-on machines in an adjacent room. The copper cylinders weigh 1800 lbs. and are 80 in. long.

Except for the hoist, which is air-operated and of 2000 lbs. capacity, the equipment is hand-propelled as a safety measure. Every precaution has been taken against fire, because the Tramrail extends into the pressroom where highly volatile ink solvents are used. Despite this, it is reported, the Tramrail equipment is easy to push, which is due in part to the flat raised treads of the Tramrail track. For further information, mention PEE No. 231 in your request.



Part of overhead Tramrail track and switch system at Toronto *Star* used for moving gravure cylinders from etching room to pressroom. Shown here is a crossover track section which can be turned to permit carrier travel on one track across another.

Squeeze Tubes

The McGraw Colorgraph Co. recently announced a change to Bracon polyethylene squeeze-to-use tubes for

YOU CAN'T LOSE!

...WITH THE NEW AND IMPROVED BEVERIDGE MATS AND SERVICE!

you have an unbeatable hand. Select any mat whether syndicate or newspaper and you get the finest in reproduction service plus a real mat economy. Let us send you one order. You'll find you win the "satisfaction pot" in more ways than one.

New Products Division
BEVERIDGE PAPER CO.
Indianapolis 4, Indiana

JUST PRINTED

The New No. 6 MIDWESTCatalog

40 PAGES OF AMERICA'S FINEST

STEREOTYPE
COMPOSING
ENGRAVING
PRESSROOM
SUPPLIES & EQUIPMENT

For your copy write
MIDWEST PUBLISHERS SUPPLY CO.
4500 W. Cermak Rd.
Chicago 23, Illinois

Be sure to see our booth at the Pacific Newspaper Mechanical Conference, Los Angeles—September 14, 15, 16.

its Dichromate Sensitizer and Speed Booster products for screen process printing. The tubes, manufactured by Bradley Container Corp., contain the right amount of fluid for 1 gal. of solution. The tubes, printed in red and black on yellow polyethylene, measure 4⅜ in. overall, by 1½ in. diam. For further details, please mention PEE No. 220 in your request.

Invisible Ink

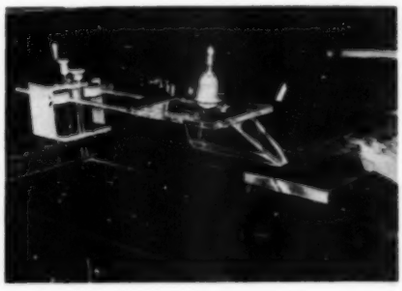
An invisible printing ink has been developed by A. August Tiger for use with sales letters and other mailing pieces. The ink is said to be effective on most any kind of paper or card, white or colored. The printed message disappears soon after printing. To bring the message into relief, a wet sponge or cloth is wiped across the surface. When the paper is dry, the message again disappears and can be brought out again with damp sponge or cloth treatment. For further details, please mention PEE No. 213 in your request.

Dirats Powderless Etcher

A powderless zinc etcher is now being manufactured by Dirats Photo-Plate Co. The machine is said to provide push button etching of flats up to 24 in. It is also said the operator can etch a zinc line of combination plate to a depth of 0.020 in. in 10 min. In 5 min., he can etch a halftone plate to a background depth of 0.010 in. Etchings with straight-down and smooth shoulders can be produced in the Dirats machine, sponsor states. This machine can be used for powderless etching of zinc or magnesium. For further details, please mention PEE No. 221 in your request.

Plastic Saw Guard

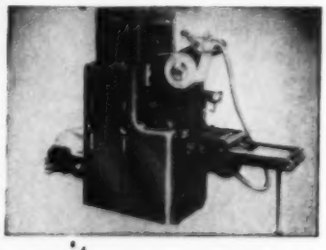
The Brett-Guard Company recently announced the Brett-Guard Tensee guard, designed especially for stereotype room saw tables. The device is designed to sheath the revolving circular saw in a transparent shield formed of Plexiglas. The device is said to prevent the printing surface against damage and permit the operator to safely manipulate electros, cuts, and Linotype slugs that are less



than ⅜ in. long. Protection is also afforded where saws are used for cutting copper and nickel casts and blocking wood, and squaring up either mounted or unmounted electrotypes, wood cuts, and also in use in photoengraving shops. The guard standard is made of cast aluminum metal which supports the guard shield. The standard is fitted with an adjustable aluminum raising and low-

Speed Flex **ROTARY PRESSES SPEED PROFITS!**

for new, faster methods of printing, investigate Speed Flex



ORVILLE DUTRO & SON, INC.
117 West 9th St., Los Angeles 15, Calif.

NAME
ADDRESS
CITY ZONE STATE

WRITE FOR INFORMATION!
Designed and sold exclusively by Orville Dutro & Son. Made by Western Gear, manufacturers of gears and special machinery for industry since 1888.

CHAS. T. MAIN, INC.

Engineers Since 1893

ECONOMIC STUDIES, PROCESS STUDIES, DESIGN, SPECIFICATIONS
PROCUREMENT AND CONSTRUCTION SUPERVISION
FOR
NEWSPAPER AND PRINTING PLANTS

80 Federal St. Boston, Mass.
317 South Tryon St. Charlotte, N. C.

CLASSIFIED Advertising

ALL CLASSIFICATIONS

$.75 per line 1 9/16" wide. Minimum ad 5 lines, 25 characters per line. Cash with order.

CLOSING DATE—15th of Month preceding Date of Issue

We will forward all mail addressed to Box Numbers. When answering Box Numbered ads, address as follows: Box Number . . . PRINTING EQUIPMENT Engineer, 1276 West 3rd Street, Cleveland 13, Ohio.

FOR SALE
MODEL 4300 SPEEDAUMAT

wrapper addressing machine with postal permit and return address printer — excellent condition. Bargain priced for quick sale.

ANDERSON FOLDING-WRAPPER MACHINE

sizes up to 11 x 14 includes 1½ HP motor and 15 ft. conveyor with motor — excellent condition — in production now — we invite your inspection. Bargain priced for quick sale. Prince & Co., Inc., 5435 W. Fort St., Detroit 9, Mich. Telephone: VInewood 2-4200.

FOR SALE

ADDRESSOGRAPH — Model 3400 Built special to cut addressing costs—continuous feed — extension delivery—24 position selector—AC motor 110 volt—in excellent condition. BARGAIN PRICED FOR QUICK SALE. Prince & Company, Inc., 5435 W. Fort St., Detroit 9, Michigan. Telephone VInewood 2-4200.

FOR SALE

Stereotype pot, 3 ton, 36 inch diameter with six 5 KW heaters and control. Box 176, Sparta, Ill.

FOR SALE

HARRIS TWO COLOR LTL Model 258 (new 1952) 42x58". Baldwin washups plus Baldwin agitators, A.C. 3 ph. 220 volt electrical equipment. Cleanly maintained for quality production, press runs like a jewelled watch movement — personal inspection will prove new machine efficiency. Priced to sell, at under $60,000. For October release.

We also have a current model Miehle 61 Two Color Offset for sale, new 1950.

TYPE & PRESS of Ill., Inc. 3312 North Ravenswood, Chicago

HELP WANTED

PRINTING ESTIMATOR for modern progressive printing and lithographing plant located in St. Louis County, Missouri. Excellent opportunity for right man. We will help locate. Give all details and experience. Address reply to Box 544, PRINTING EQUIPMENT Engineer.

WANTED

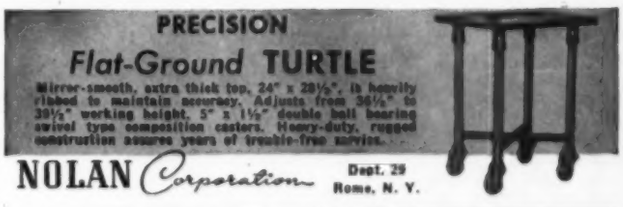
Stereotype mat roller for molding page newspaper mat. Ledger, Mexico, Missouri.

WEB DRYING
LETTERPRESS • OFFSET
GRAVURE • FLEXOGRAPHIC

HIGH SPEED PRODUCTION
ECONOMICAL OPERATION

25 Years* DRYER *Experience

B. OFFEN & CO.
168 N. Michigan Ave. Chicago 1, Ill.


PRECISION
Flat-Ground TURTLE
Mirror-smooth, extra thick top, 24" x 28½", is heavily ribbed to maintain accuracy. Adjusts from 36¼" to 39½" working height. 5" x 1½" double ball bearing swivel type composition casters. Heavy-duty, rugged construction assures years of trouble-free service.
NOLAN Corporation
Dept. 29
Rome, N. Y.

NEWSPAPER PRESSES
Complete Plants Equipped
Daily or Weekly
BEN SHULMAN ASSOCIATES
60 E. 42nd St., N. Y. 17, N. Y. OXford 7-4590

ering plate. Printing surface protection is possible by employing a twin set of steel arms to suspend the transparent shield about the saw blade in a fixed position. Clearance between the table top and the shield is adjusted by a crank handle. For further details, please mention PEE No. 215 in your request.

Air Compressor Equipment

A line of ATF air compressor equipment and accessories was announced recently by William W. Fisher, vice president in charge of sales, American Type Founders. In the line is included: Single and two-stage, air cooled compressors (tank or base mounted); single-stage, watercooled, electric, oil-less 10 lb. air compressor; air receivers for base mounted compressors; solenoid water control valves; after coolers, and dual controls.

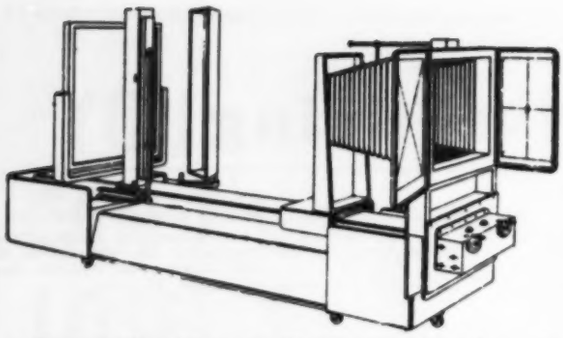
The two-stage, air cooled unit is used to provide compressed air at low temperatures through copper finned intercoolers. Intercoolers reduce the temperature of the compressed air from approx. 330 deg. to about 170 deg. F. by blasting air through fins via a combination fan and flywheel. Standard equipment and controls include pressure gauge, safety valve, tank drain, shut-off valve, combination filter-silencer, manual or magnetic starter depending on size motor.

ATF's single-stage, air cooled compressor is similar to the two stage unit, except that it has no intercoolers; the air is compressed and immediately discharged into the air receiver at temperatures from 405 deg. to 455 deg. F.

The single-stage water cooled, base mounted air compressor reduces air temperature by means of water jackets on cylinders and head.

For small presses with short tubing lines, a compressor delivers 10 lbs. air pressure. A pop valve eliminates need for an air regulator. It is equipped with grease packed main bearings and sealed ball bearings.

Other features of ATF air compressors, states sponsor, are: An unloader which is used to unload the



Wesel 25 Camera—*The Wesel Manufacturing Co. recently announced its Wesel 25 Camera for offset jobs. The camera is designed for line and Autoscreen offset and photoscreen negatives. The camera is of lathe-like monorail design. The tilting copy holder is 30 in. by 40 in. Two banks of four flood lights move with the copyboard. The camera is portable, mounted on six casters. The lens is a Goerz with a 20 in. by 24 in. area. It reduces 5 times and enlarges 2 times. The control panel is equipped with a timer for lights, focus controls, and number counters. Floor space required with lamps closed is 12 ft. by 3 ft.; with lamps open, 12 ft. by 8 ft. Some of the accessories are: Vacuum back for contact screen line work; combination copy holder and vacuum printing frame; extra plate holder frame for Xerographic metal plates; transformer with controls on panel installed for 2300 and/or 3400 Kelvin color lighting, and a 14 in. by 17 in. transparency light box. For further details, please mention PEE No. 223 in your request.*

compressor when it stops and withholds the load until the motor has reached full speed on restarts; oil level lubrication, with larger models having standard pressure lubrication; Timken main bearings; automotive type pistons; non-breakable steel valves; land enclosed crankcases. For further details, please mention PEE No. 212 in your request.

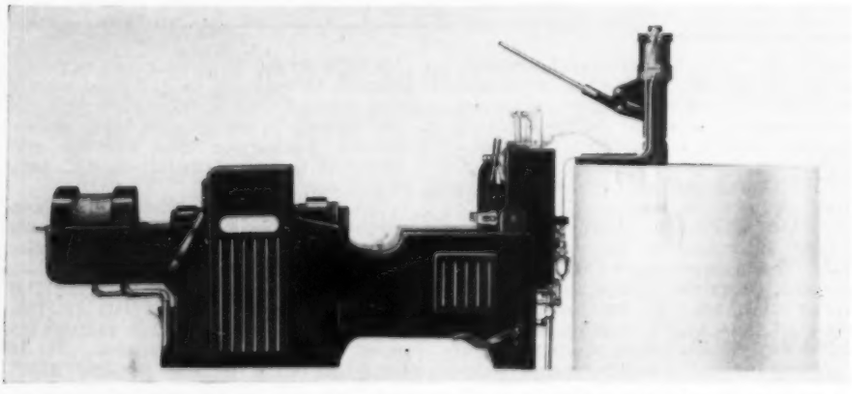
Plate Casting Machine

The Standard Pony Autoplate Machine, manufactured by Wood Newspaper Machine Corp., is a stereotype plate casting machine. In many respects the machine resembles the Wood Heavy Duty Pony Autoplate with compromises in the automatic features which offer the smaller city newspapers a machine which is said to produce a plate per minute. Features are: Shaving arch lipped into the frames with bolts holding the arch in place; redesigned cooling stand; a V-belt drive between motor and drive for saw and shaving mechanisms; thermostatically controlled water supply into box, core, and shaving arch; spring follow-up which keeps constant follow-up pressure on the plate while being shaved; one piece cast frame; metal chip pan; beveling tool attached to knife bar; ballbearing mounted worm drive to the knife bar. A pneumatic pumping device can be furnished for attachment to existing pumps or to a Wood Power Operated Metal Pump. Both devices include safeguards against double pours and pours without mats. When equipped with the Pre-registering Attachment, color plates can be trimmed in register on the Automiller by a gang of four long-life cutters. Eight pockets are cut into a plate in less than 25 sec., it is stated. For further details, please mention PEE No. 218 in your request.

Readies Platemaking Line

Robertson Photo-mechanix, Inc., announces that its complete line of platemaking equipment has been fully re-designed. The newly-designed units will be available early in the fall and, it is said, will include among other things, a new type of makeup, layout and stripping table, employing a new approach to illumination.

Two new series of floor type vacuum printing frames are also included. Also announced are the Economite utility frame and a heavy duty Model F single printing frame, with six unusual features. Several new sinks will be introduced, including a new temperature controlled unit and a stainless steel developing sink. For more details, please mention PEE No. 225 in your letter.



Side view of Wood Newspaper Machinery Corp.'s Wood Standard Pony Autoplate Machine with furnace attached. Lower part of the hand operated pump is shown in phantom view as installed on the metal pot.

ADVERTISERS' INDEX

SEPTEMBER 1956

P. E. E. REPRESENTATIVES

PAUL B. HOLDER, Advertising and Promotion, 1276 West Third St., Cleveland 13, O. Phone PRospect 1-0088.

WILLIAM L. OSBORN, Eastern Advertising Representative, 2709 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Advertising Representative, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6467.

Acme Telectronix, Div. of NEA Service, Inc. 74
Alan Wood Steel Co. 65
American Evatype Corp. 6
American Type Founders 16

Baum, Russell Ernest, Inc. 73
Beveridge Paper Co., The, New Products Div. 78
Burgess Cellulose Co. 67

Capital Tool & Mfg. Co. 73
Carlson, Chesley F., Co. 70
Central Compounding Co. 5
Certified Dry Mat Corp. 77
Cook's, Adam, Sons, Inc. 72
Curtis Laboratories, Inc. 27
Cutler-Hammer, Inc. 22, 23

Dayton Rubber Mfg. Co. 11
Dexter Folder Co. 24
Dutro, Orville, & Son, Inc. 78

Eastern Newspaper Supply, Inc. 63
Electric Eye Equipment Co. 9

Filmotype Corporation, The 71

Goss Printing Press Co., The 13

Hamilton Manufacturing Co. 62
Hammond Machinery Builders, Inc. ..... Inside Back Cover
Harris-Seybold Co. 40, 41
Heidelberg Eastern, Inc. 55
Hoe, R., & Co., Inc. 19, 20, 21

Imperial Type Metal Co. 59, 64
Intertype Corporation ..... Outside Back Cover

Kemp, The C. M., Mfg. Co. 61
Korthe Engineering Co. 76

Lawson, E. P., Co. 8
Levy, Fred'k H., Co., Inc. 57
Ludlow Typograph Co. 7

Main, Chas. T., Inc. 78
Matrix Contrast Corp. 28
Mergenthaler Linotype Co. 53
Midwest Publishers Supply Co. 78
Miehle Printing Press & Mfg. Co. 54, 55
Minnesota Mining & Mfg. Co. 58
Mohr Lino-Saw Co. 10
Monomelt Company, Inc. 76
Morrison Company, The 14

National Bundle Tyer Co. 6
New England Newspaper Supply Co. 77
Nolan Corporation 69, 79

Offen, B., & Co. 79
Ortman-McCain Co. 18
Oxy-Dry Sheet Cleaner Corp. 17

Paper Manufacturers Co. 25
Printing Equipment Engineer 76
Printing Machinery Co., The 61

Reliance Electric & Engineering Co. 15
Richards, J. A., Co. 75
Rothlan Corporation 74
Rouse, H. B., & Co. 68

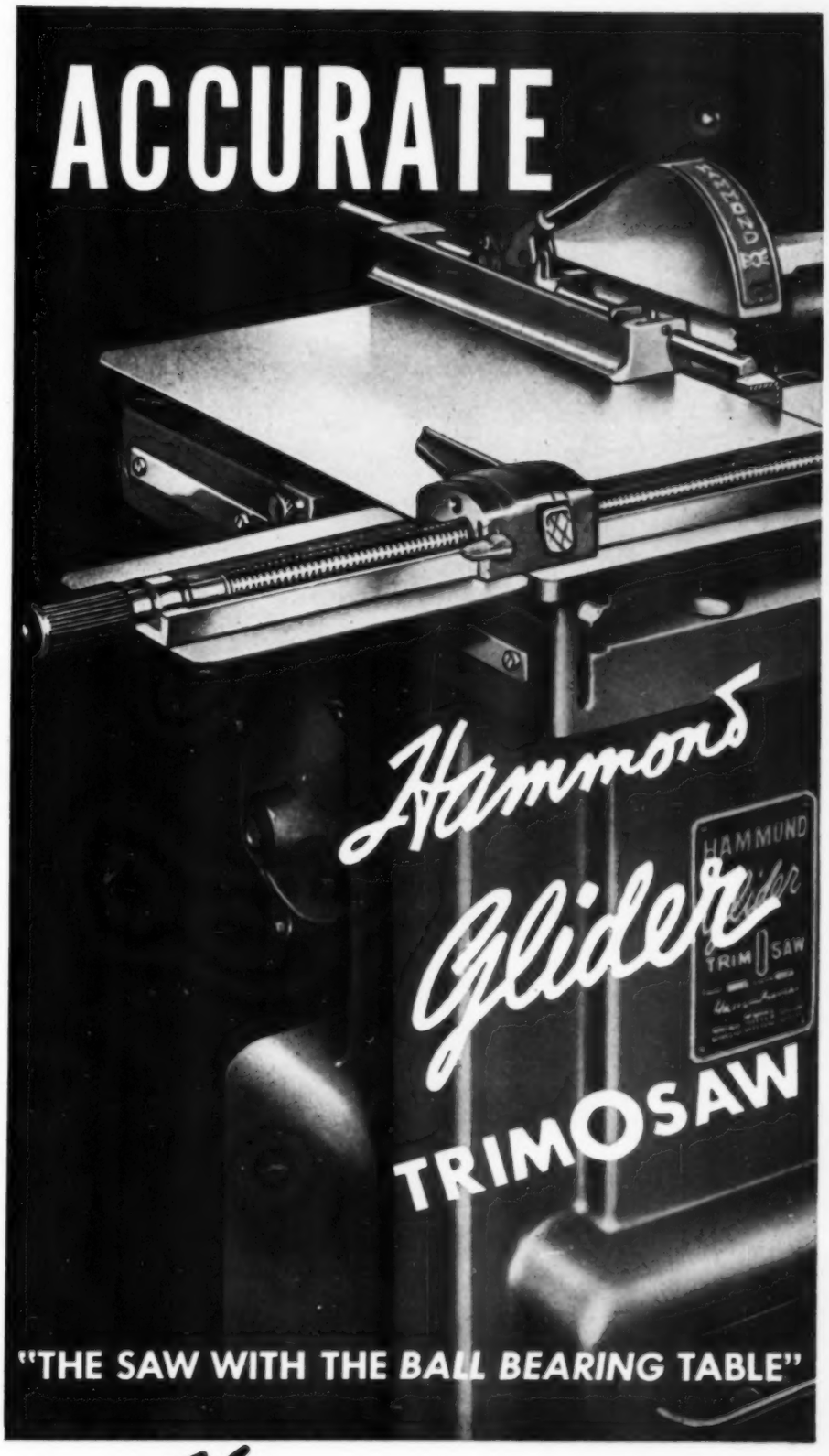
Scott, Walter, & Co., Inc. 2
Shulman, Ben, Associates 79
Signode Steel Strapping Co. 60
Sta-Hi Corporation 1
Star Parts, Inc. ..... Inside Front Cover, 59
Statikil, Div. of The J. E. Doyle Co. 79

Tingue, Brown & Co. 66

Vandercook & Sons, Inc. 76

Wesel Manufacturing Co. 26
Wood Flong Corp. 75
Wood Newspaper Machinery Corp. 4

ACCURATE



Accuracy - ease of operation - speed. The Hammond Glider TrimOsaw gives you micrometer accuracy for every sawing operation. All moving parts have wear take-ups to insure "new machine" performance and accuracy.

The Hammond Glider "the saw with the ball bearing table" and 1 HP motor provides the fastest, easiest sawing ever enjoyed on a printer's saw.

Hammond Mercury TrimOsaw "the saw with the ball bearing gauge"

Hammond Ben Franklin TrimOsaw "finest saw in the low priced field"

Hammond OF KALAMAZOO

"Good Machinery Since '82"

1604 DOUGLAS AVE. • KALAMAZOO, MICH.

GROCERY ADS BY FOTOSETTER

8, 12 and 18 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

9, 14 and 21 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

11, 16 and 24 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

12, 18 and 27 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

16, 24 and 36 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

20, 30 and 45 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

24, 36 and 54 point
Mighty Tasty Prepared
Hawaiian Pineapple can **42c**

These specimens were set from only two magazines on a Fotosetter machine by using two basic fonts, 8 pt and 12 pt, plus 18 pt ad figures. A block of copy in any group size is set without any mechanical changes.

The type shown, when set by conventional hot metal methods in all these sizes, would require *14 fonts, 14 main magazines and 7 fonts of ad figures* in their side magazines. Only *2 fonts of mats and 1 font of ad figures in 2 magazines* were used to set this type on a Fotosetter machine.

This *same copy* would require at least *20 pieces of metal type and spacing material* as compared to *1 piece of paper and no makeup* when set on the Fotosetter.

The specimens were set with 8 pt Futura Book, 12 pt Futura Bold and 18 pt Futura Bold Ad Figure Fotosetter matrices. Many other combinations in 8 and 12 pt basic fonts and 18 pt ad figures, as well as a variety of logotypes, are available.

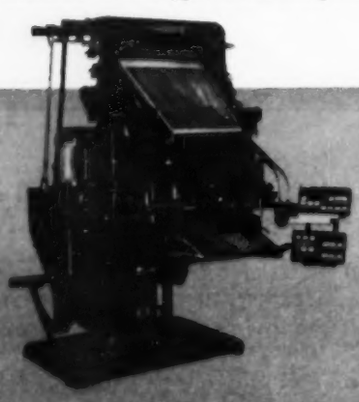
What a tremendous saving in matrix, magazines and mold equipment! Add to this the elimination of time required to change magazines and molds, or moving copy from machine to machine and then assembling on the bank.

Makeup done the Fotosetter way saves real time, material and labor. Angles, circles and boxes are easy. White space is free without the use of any lead material. In makeup you merely finger illustrations and type matter into place. Corrections are quickly made. Quality and clarity of reproduction cannot be equaled.

Look at all these cost-cutting advantages:

1. *No overhang casting*
2. *No makeup on the bank*
3. *No piecing, no cutting in*
4. *No magazine changes, no magazine lifts*
5. *No mold changes*
6. *Widest choice of type sizes*
7. *Up to 54 pt ad figures in any face*
8. *Full alignment flexibility top, center or bottom*
9. *New, fast, complete ad makeup methods using paper, not metal*
10. *Borders, boxes, angles, art are simply fingered into place—no mitering, no furniture, no mortising of flat casts and cuts*
11. *Revisions are easy*

Ask your Intertype representative to show you how modern Fotosetter photographic line composing machine methods can improve the efficiency of your composing room.



INTERTYPE CORPORATION

360 Furman Street, Brooklyn 1, New York

Chicago, San Francisco, Los Angeles, New Orleans, Boston
In Canada: Toronto Type Foundry Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver, Halifax

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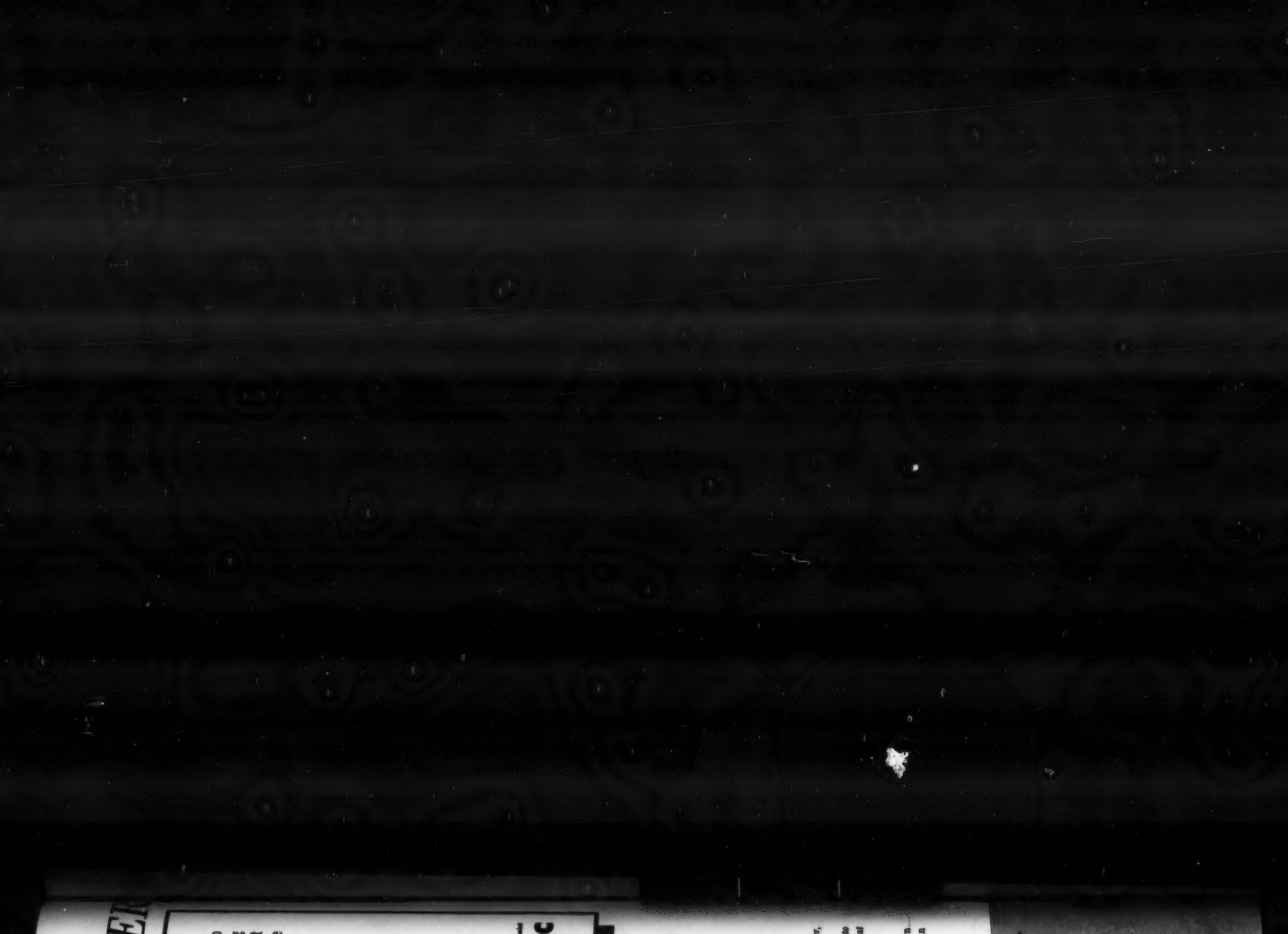
Text in Fotosetter Bodoni Book